

Action Plan

for Implementation of the
**Federal Facility
Agreement and
Consent Order**

THE STATE OF IDAHO,
DEPARTMENT OF
HEALTH & WELFARE

THE UNITED STATES
ENVIRONMENTAL PROTECTION
AGENCY, REGION 10

THE UNITED STATES
DEPARTMENT OF ENERGY,
IDAHO FIELD OFFICE

for the
Idaho National Engineering Laboratory

ACTION PLAN TABLE OF CONTENTS

Acronyms	v
1.0 Introduction	1
1.1 Action Plan Goal	1
1.2 CERCLA Philosophy/Strategy	1
1.3 CERCLA Integration with Other Programs	2
2.0 CERCLA Process	3
2.1 CERCLA Process Overview	3
2.2 Initial Operable Unit Screening	5
2.3 Preliminary Scoping Track 1	5
2.4 Preliminary Scoping Track 2	8
2.5 Interim Action Planning	8
2.6 RI/FS Scoping Process	8
2.7 RI/FS Implementation	15
2.8 Decision Process	15
2.9 ROD Schedule	15
2.10 Post-ROD Process	20
2.11 RD/RA Scoping Process	20
2.12 Remedial Design Process	21
2.13 Remedial Action Process	22
2.14 Operation and Maintenance	23
3.0 WAG Concept and Descriptions	24
3.1 WAG 1	26
3.2 WAG 2	26
3.3 WAG 3	27

3.4	WAG 4	27
3.5	WAG 5	27
3.6	WAG 6	28
3.7	WAG 7	28
3.8	WAG 8	28
3.9	WAG 9	29
3.10	WAG 10	29
3.11	Drinking Water Actions	29
4.0	Project Management	31
4.1	Project Manager Roles and Responsibilities	31
4.2	Lead Agency Concept	31
4.3	Project Managers' Meeting	32
4.4	Recommended Training and Qualifications	32
5.0	Data Quality Objectives and Risk Assessment	33
Appendix A		
	Enforceable Deadlines, Operable Units and CERCLA Process Tracks, and Schedule	A-1
Appendix B		
	No Further Action Determination	B-1
Appendix C		
	Preliminary Scoping Track 2 Summary Report Outline	C-1
Appendix D		
	Project Manager Designations	D-1

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ACRONYMS

AEA	–	Atomic Energy Act
ANL–W	–	Argonne National Laboratory – West
ANP	–	Aircraft Nuclear Propulsion
ARA	–	Auxiliary Reactor Area
ATR	–	Advanced Test Reactor
BORAX	–	Boiling Water Reactor Experiment
BRA	–	Baseline Risk Assessment
CERCLA	–	Comprehensive Environmental Response, Compensation and Liability Act
CFA	–	Central Facilities Area
COCA	–	Consent Order and Compliance Agreement
CSM	–	Conceptual Site Model
D&D	–	Decontamination and Decommissioning
DOD	–	Department of Defense
DQO	–	Data Quality Objective
EBR–I	–	Experimental Breeder Reactor–I
EBR–II	–	Experimental Breeder Reactor–II
H&SP	–	Health and Safety Plan
HWMA	–	Hazardous Waste Management Act
IA	–	Interim Action
ICPP	–	Idaho Chemical Processing Plant
IDHW	–	Idaho Department of Health and Welfare
IET	–	Initial Engineering Test Facility
INEL	–	Idaho National Engineering Laboratory
LCCDA	–	Liquid Corrosive Chemical Disposal Area
LDU	–	Land Disposal Unit

LOFT	–	Loss of Fluid Test Facility
NCP	–	National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan)
NEPA	–	National Environmental Policy Act
NODA	–	Naval Ordnance Disposal Area
NRF	–	Naval Reactor Facility
O&M Plan	–	Operation and Maintenance Plan
OU	–	Operable Unit
PBF	–	Power Burst Facility
PREPP	–	Process Experimental Pilot Plant
QAPjP	–	Quality Assurance Project Plan
QAPP	–	Quality Assurance Program Plan
RCRA	–	Resource Conservation and Recovery Act
RD/RA	–	Remedial Design/Remedial Action
RI/FS	–	Remedial Investigation/Feasibility Study
ROD	–	Record of Decision
RWMC	–	Radioactive Waste Management Complex
SAP	–	Sampling and Analysis Plan
SDA	–	Subsurface Disposal Area
SMC	–	Specific Manufacturing Capability
SOW	–	Statement of Work
SPERT	–	Special Power Excursion Reactor Test
SRPA	–	Snake River Plain Aquifer
SWEPP	–	Stored Waste Examination Pilot Plant
SWMU	–	Solid Waste Management Unit
TAN	–	Test Area North

TRA	–	Test Reactor Area
TSA	–	Transuranic Storage Area
TSF	–	Test Support Facility
U.S. DOE	–	United States Department of Energy
U.S. EPA	–	United States Environmental Protection Agency
WAG	–	Waste Area Group
WAG 1	–	Waste Area Group 1 – Test Area North (TAN)
WAG 2	–	Waste Area Group 2 – Test Reactor Area (TRA)
WAG 3	–	Waste Area Group 3 – Idaho Chemical Processing Plant (ICPP)
WAG 4	–	Waste Area Group 4 – Central Facilities Area (CFA)
WAG 5	–	Waste Area Group 5 – Power Burst Facility (PBF)/Auxillary Reactor Area (ARA)
WAG 6	–	Waste Area Group 6 – Experimental Breeder Reactor No. I (EBR-I)
WAG 7	–	Waste Area Group 7 – Radioactive Waste Management Complex (RWMC)
WAG 8	–	Waste Area Group 8 – Naval Reactor Facility (NRF)
WAG 9	–	Waste Area Group 9 – Argonne National Laboratory – West (ANL-W)
WAG 10	–	Waste Area Group 10 – Miscellaneous surface sites and liquid disposal areas throughout the INEL that are not included within other WAGs
WRRTF	–	Water Reactor Research Test Facility

1.0 INTRODUCTION

This Action Plan implements the Idaho National Engineering Laboratory (INEL) Federal Facility Agreement and Consent Order (FFA/CO), hereafter referred to as “the Agreement.”

1.1 Action Plan Goal

U.S. Department of Energy (U.S. DOE), U.S. Environmental Protection Agency (U.S. EPA), and Idaho Department of Health and Welfare (IDHW) have a common goal to ensure that releases or threatened releases of hazardous substances at the INEL are thoroughly investigated in accordance with the National Contingency Plan (NCP) and that appropriate response actions are undertaken and completed as necessary to protect human health and the environment.

The purposes of the Agreement are to:

- Establish a procedural framework and schedule for developing, prioritizing, implementing, and monitoring appropriate response actions at the INEL in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and Idaho Hazardous Waste Management Act (HWMA)
- Facilitate cooperation, exchange of information, and participation of the Parties in such actions
- Minimize duplication of analyses and documentation
- Expedite the clean-up process to the maximum extent possible consistent with protection of human health and the environment and
- Supersede the existing RCRA 3008(h) Consent Order and Compliance Agreement (COCA) executed on July 10, 1987

1.2 CERCLA Philosophy/Strategy

CERCLA's implementing regulation, the NCP, has a “bias for action.” A fundamental goal of cooperative efforts by U.S. DOE, U.S. EPA, and IDHW in implementing this Agreement is that remedial action be emphasized. This goal recognizes that no reasonable amount of investigation can resolve all uncertainty and that once remedial actions are initiated they must be able to accommodate deviations from original hypotheses. This approach encourages timely remedy selection, flexibility for remedial action, and contingencies to respond to new information discovered during investigations.

The Parties support this “bias for action” position and the environmental restoration program for the INEL will proceed based on the following:

- Interim actions under the NCP will be used to proceed quickly with cleanup.

- Site characterization will be planned on the basis of optimizing field sampling and maximizing use of available data.
- Treatability studies will proceed promptly to establish technologies that are appropriate for restoration of complex units.

1.3 CERCLA Integration with Other Programs

1.3.1 Transition From RCRA to CERCLA

The Agreement to which this Action Plan is attached supersedes the INEL COCA. This effectively moves the investigation and cleanup of releases at the INEL from a RCRA to a CERCLA process. Although data gathered and planning accomplished to date are of future value in the CERCLA process, requirements pursuant to the COCA cease at the time of the Agreement's execution.

All waste management units identified for consideration under the COCA are accounted for in the transition to the Agreement. In some instances, this is accomplished by simply identifying those COCA units that will receive no further consideration under the new Agreement. Evaluation of existing data does not indicate a basis for potential risk for these units. Consensus was reached by the Parties to the Agreement regarding the No Action designation. Many of these units were already approved under terms of the COCA for deletion from further consideration. Descriptions of units in this category, including the rationale for the No Action determinations, will be in the INEL Administrative Record and will support the appropriate Record of Decision (ROD) for each Waste Area Group (WAG). All units not in this category were assigned to operable units (OUs) within the CERCLA process described in this Action Plan.

Thirty Land Disposal Units (LDUs) were identified under the COCA. All 30 of these LDUs will be evaluated under this Agreement. Units retaining the RCRA LDU designation will be remediated under the CERCLA process in accordance with the applicable substantive requirements of RCRA/HWMA, if an unacceptable risk to human health or the environment is demonstrated.

1.3.2 Integration with Other Programs

Releases or threatened releases of hazardous substances under regulatory programs that require investigation and study for cleanup are addressed under this Action Plan.

2.0 CERCLA PROCESS

This section describes the process that will be followed in implementing this Action Plan and applying the CERCLA process, as defined in the NCP, to the remedial effort at the INEL. The process is presented in a series of flow charts with associated generic time lines (Figures 2.1 through 2.3) and the brief narrative descriptions below. Each flow chart identifies the primary and secondary documents associated with the process or “track” shown in the flow chart. Schedules, including enforceable deadlines, based on application of this process are shown in Appendix A as Figure A. Deadlines for primary documents derived from those schedules are in Table A.1, Appendix A. Specific target dates for the completion of secondary documents will be established during the development of Scopes of Work. Schedules and deadlines may be extended for good cause pursuant to Part XIII of the Agreement.

2.1 CERCLA Process Overview

Figure 2.1 presents a general overview of the process that will be used to achieve appropriate remedial action decisions for the various operable units at the INEL. Consistent with the “bias for action” philosophy, the Action Plan encourages and provides the necessary flexibility to reach an early determination on an OU when there is sufficient information. The determination may be that no further action is necessary, that an interim action is appropriate, or that the OU should proceed through the Remedial Investigation/Feasibility Study (RI/FS) process to a final action. This flexibility is supported by establishing generic “tracks” allowing consistency between the scope and duration of investigations and complexity of associated documentation, and between the scope and complexity of the problems being addressed. The process to reach expeditious decisions is depicted in Figure 2.1 by showing that an interim action OU can be broken off from any track and proceed directly to the Interim Action track and then to the Decision or ROD process at any time during the process when there is adequate information to support such a decision. The process also provides Project Managers with the flexibility to prioritize work and organize OUs in a manner which will achieve the most benefit with available funds.

Under this process, each potential source area at the INEL is categorized into an Operable Unit group and for investigation or remedial activities. Actions are performed as necessary to abate health or environmental concerns in accordance with the NCP. Those Operable Units which are determined to pose a significant but acceptable risk and have the potential to contribute to the overall cumulative risk are designated for further evaluation. The consideration of a source area’s contribution to the cumulative risk will be evaluated under an appropriate RI/FS risk assessment.

The following subsections describe the individual generic tracks.

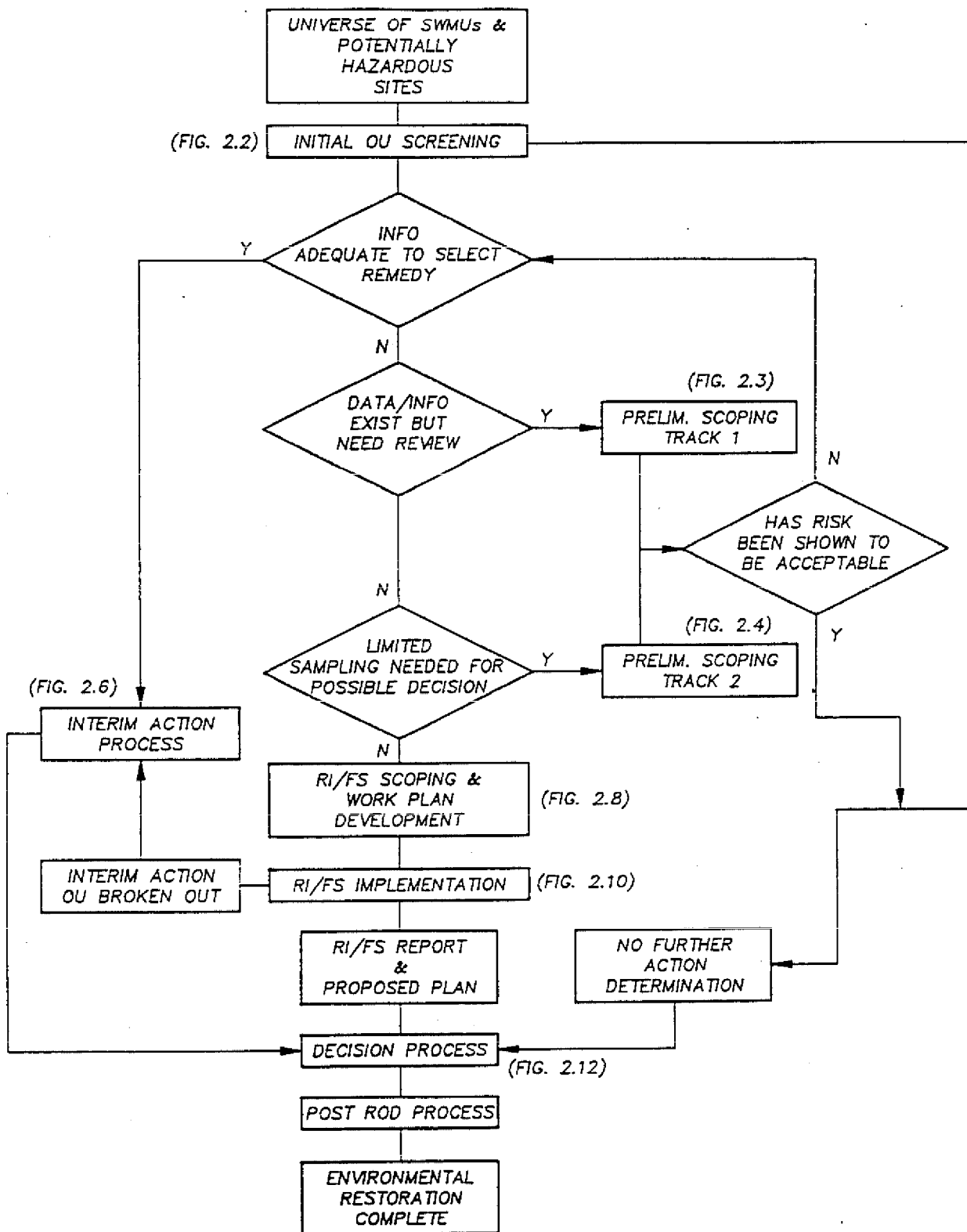


Figure 2.1 CERCLA Process Overview.

2.2 Initial Operable Unit Screening

The initial OU screening activity was conducted before the Agreement approval and, therefore, does not include a time line. The screening process is depicted in Figure 2.2. During this activity, individual Solid Waste Management Units (SWMUs) or potentially hazardous sites were identified for each WAG.

The extent of existing information and information gaps was identified sufficiently to assign the unit to the appropriate track. A No Further Action Determination was made only if there was no justification to further address the unit. Justification was based on the determination that no hazardous substances were released, or that an approved summary assessment existed under the COCA and there was no evidence of radiological contamination. If a clear No Further Action Determination could not be made, the unit was assigned to an interim action track or designated for further investigation. All No Further Action Determinations are subject to review at the time of issuance of the next appropriate ROD.

Interim action OUs were established only on the basis that the action would prevent exposure, would control risk, would be consistent with the expected final remedy, and was of sufficient priority to justify an immediate commitment of resources.

Following assignment to the appropriate track, potentially hazardous sites were combined on a WAG basis into OUs in keeping with the NCP definition of an OU as a discrete action that constitutes an incremental step toward comprehensively addressing site problems. Table A.2, Appendix A, identifies the OUs and presents the tracks on which each OU will be managed. Table A.2 also shows the units that received a No Further Action Determination during initial OU screening. On the basis of new information developed during the CERCLA process, the Project Managers may move potentially hazardous sites between OUs and may add or reorganize OUs to create new ones.

2.3 Preliminary Scoping Track 1

The Preliminary Scoping Track 1 process is appropriate for OUs that probably will not require further characterization as a basis for a decision for no further action. Track 1 studies are by definition envisioned to be evaluations of existing data. If the data evaluation requires more than minimal field characterization, the OU site should be in a Track 2 study (see Section 2.4).

As shown in Figure 2.3, the potential outcomes of a Track 1 study are proceeding to a No Further Action Determination, a Track 2 study, an interim action, or the RI/FS scoping process. These latter three tracks would be recommended if the data and qualitative risk evaluations identify unanticipated contamination or unacceptable risk potential.

Track 1 investigations supporting No Further Action Determinations are presented to the Project Managers on a quarterly basis during Project Managers' meetings. The Project Managers sign the No Further Action Determination and it is placed in the OU Administrative Record. An example of a No Further Ac-

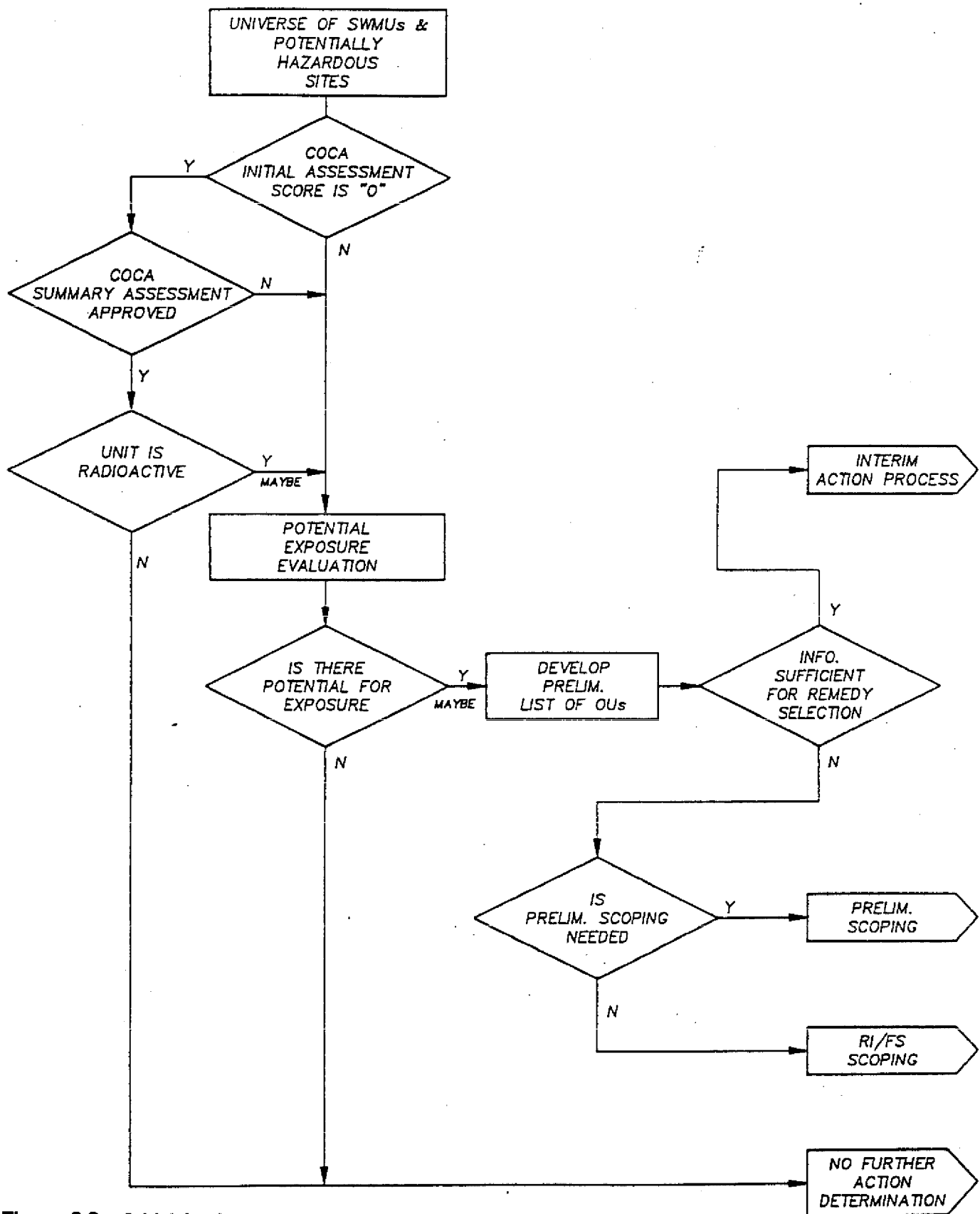


Figure 2.2 Initial OU Screening.

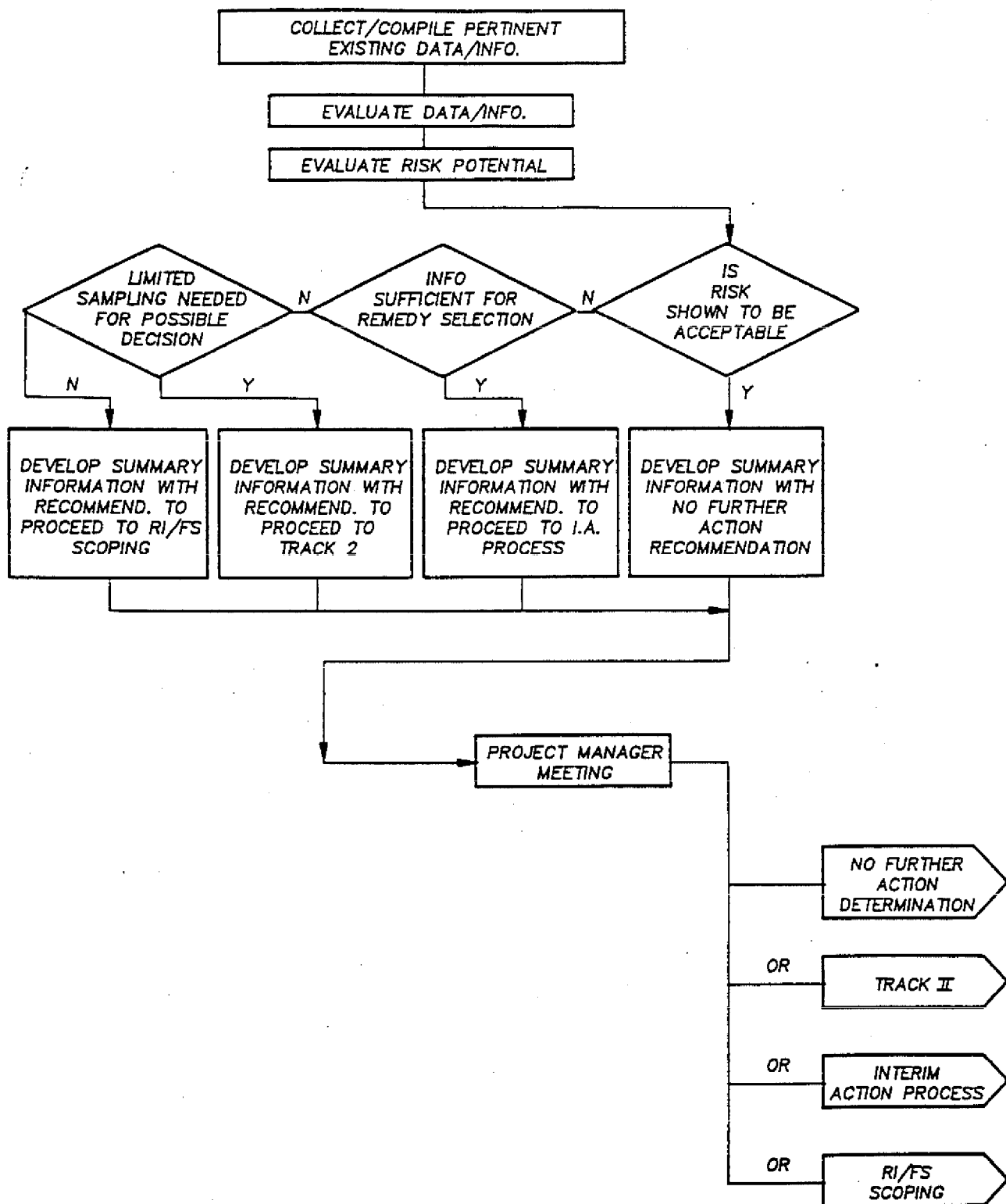


Figure 2.3 Preliminary Scoping Track 1.

tion Determination is shown in Appendix B. The Project Managers evaluate the recommendations to proceed to Track 2, interim action, or RI/FS scoping and the Agreement is modified as appropriate under Part XXX to reflect the recommendations.

2.4 Preliminary Scoping Track 2

Preliminary Scoping Track 2, shown in Figure 2.4, is appropriate for OUs that require field data collection before a decision can be made for No Further Action or interim action of the unit. Because the Track 2 is designed for field data collection, sufficient time (18 months) is allowed to develop the needed planning documentation and to conduct the field investigation and laboratory analyses (Figure 2.5). Track 2 begins with the development of a Scope of Work (SOW) that summarizes scope, schedule, and deliverables. Track 2 studies end with the development of a Scoping Summary Report. A generic outline of this report is included as Appendix C.

Track 2 investigations could result in the OU proceeding to RI/FS scoping if a No Further Action or interim action decision is not justified by the data collected during Track 2 investigations.

Track 2 may also consist of the integrated demonstration of innovative technologies that represent potential INEL remediation processes. In this case, a Work Plan in lieu of a Sampling and Analysis Plan (SAP) would be developed. A summary report on the evaluation of the demonstration will be prepared. Both the Work Plan and the summary report would have secondary document status. The information generated in this type of Track 2 would support future interim action decisions or the evaluation of the technology during RI/FS implementation.

2.5 Interim Action Planning

An interim action is undertaken to eliminate, reduce, or control hazards posed by a site or to expedite completion of total site cleanup. The interim action planning process may be initiated any time the data will provide sufficient justification and when the Project Managers agree that immediate action is appropriate.

An SOW initiates the interim action process (see Figure 2.6). Data are compiled, qualitative risk findings are established, and appropriate technologies are reviewed during a 5-month period (see Figure 2.7). This information is used to develop a proposed plan that initiates the decision process.

2.6 RI/FS Scoping Process

The RI/FS scoping process, as described in the NCP and in the CERCLA *RI/FS Guidance* (October 1988, Interim Final), is basically the planning process for the RI/FS, beginning with development and approval of an SOW and culminating in the preparation and approval of the RI/FS Work Plan and other associated planning documents (see Figure 2.8). A 10-month time period is provided for this effort. Figure 2.9 provides a general time line for the tasks involved.

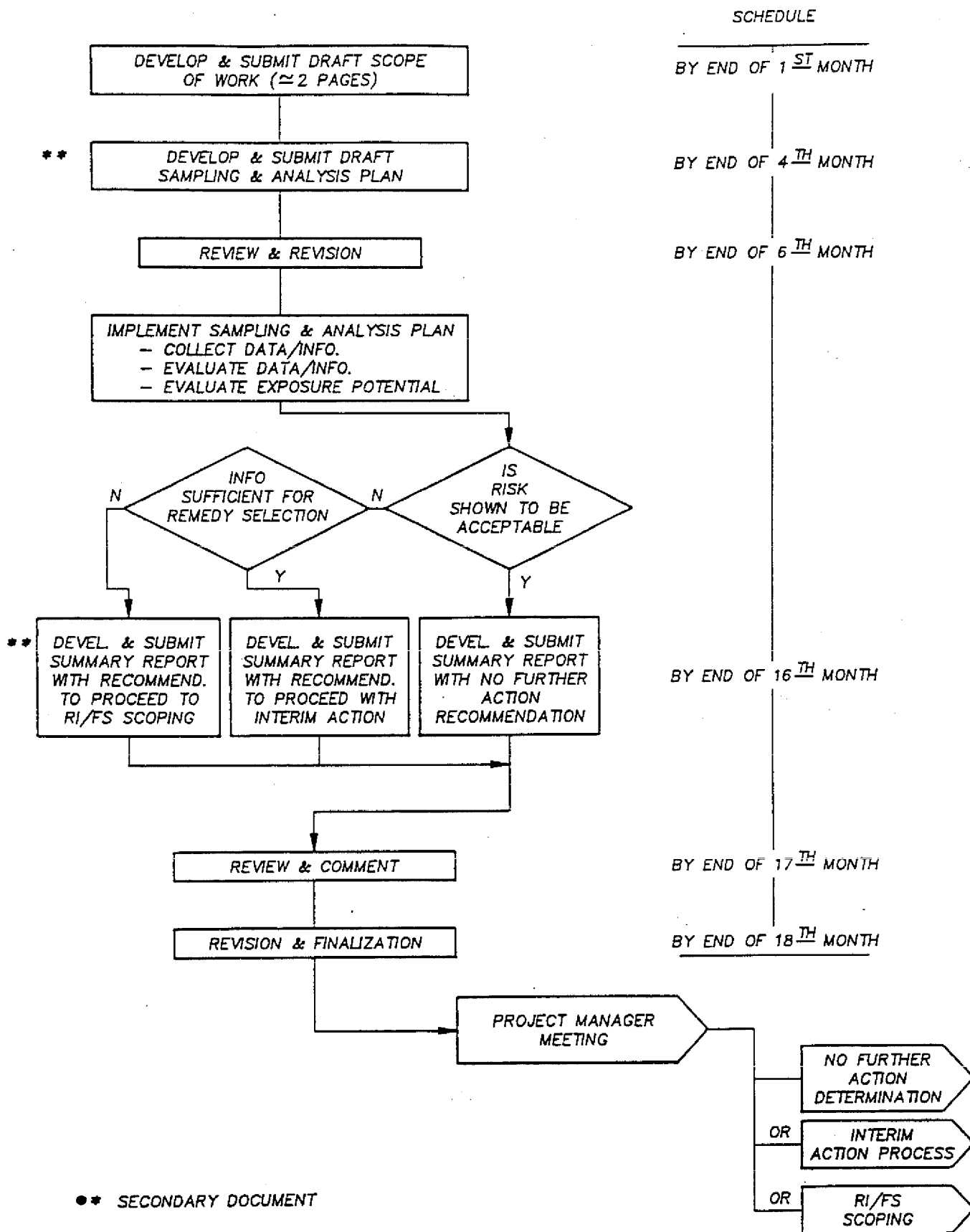


Figure 2.4 Preliminary Scoping Track 2.

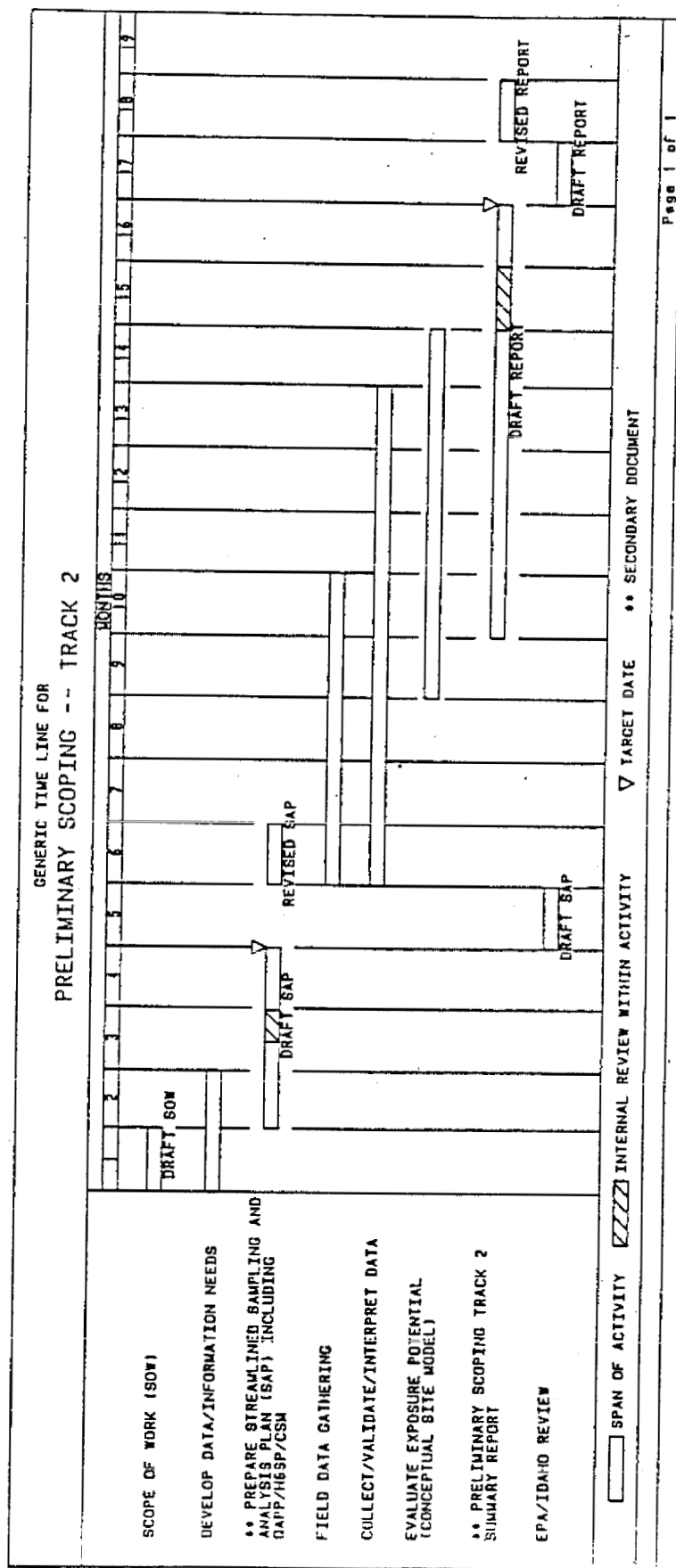


Figure 2.5 Generic Time Line for Preliminary Scoping—Track 2.

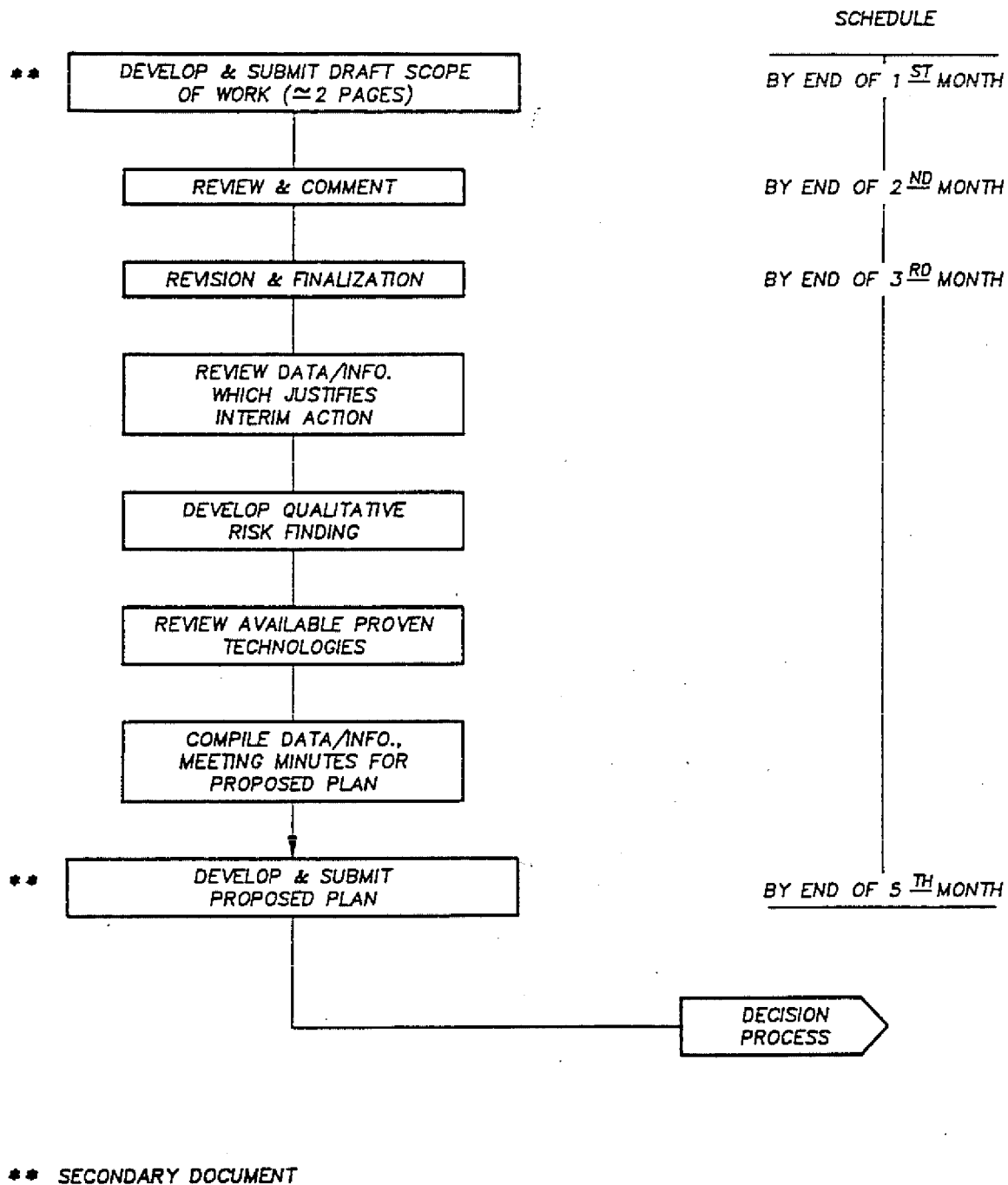


Figure 2.6 Interim Action Planning Process.

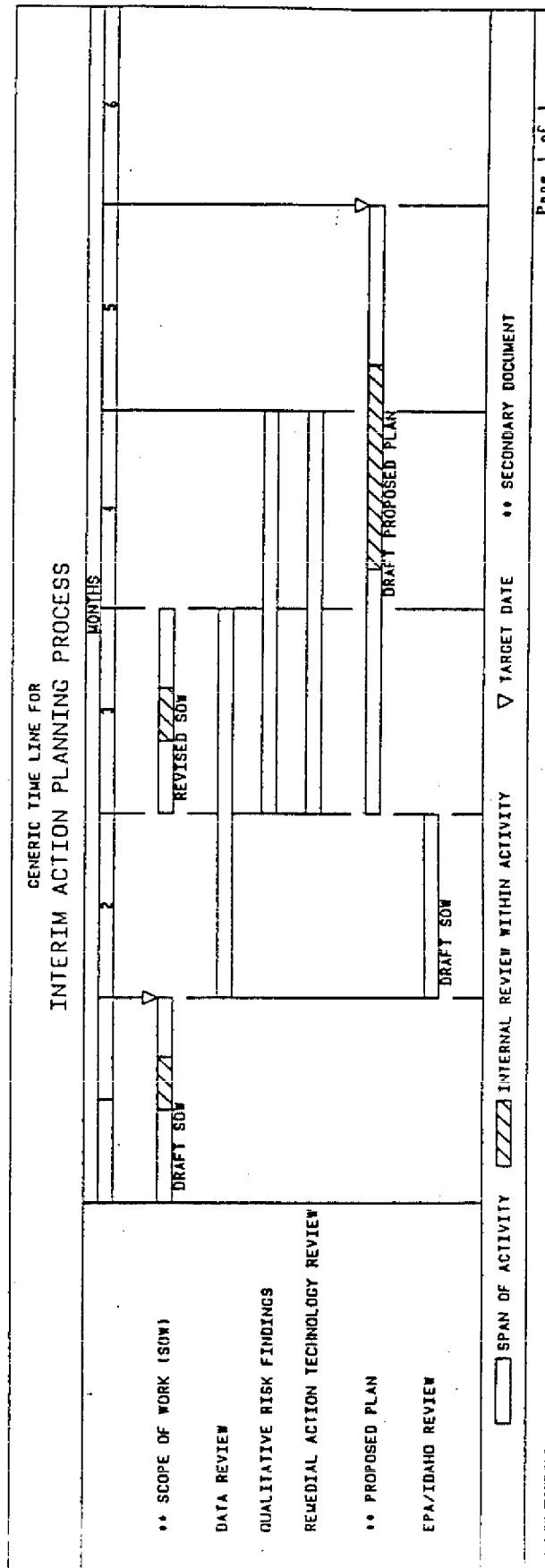
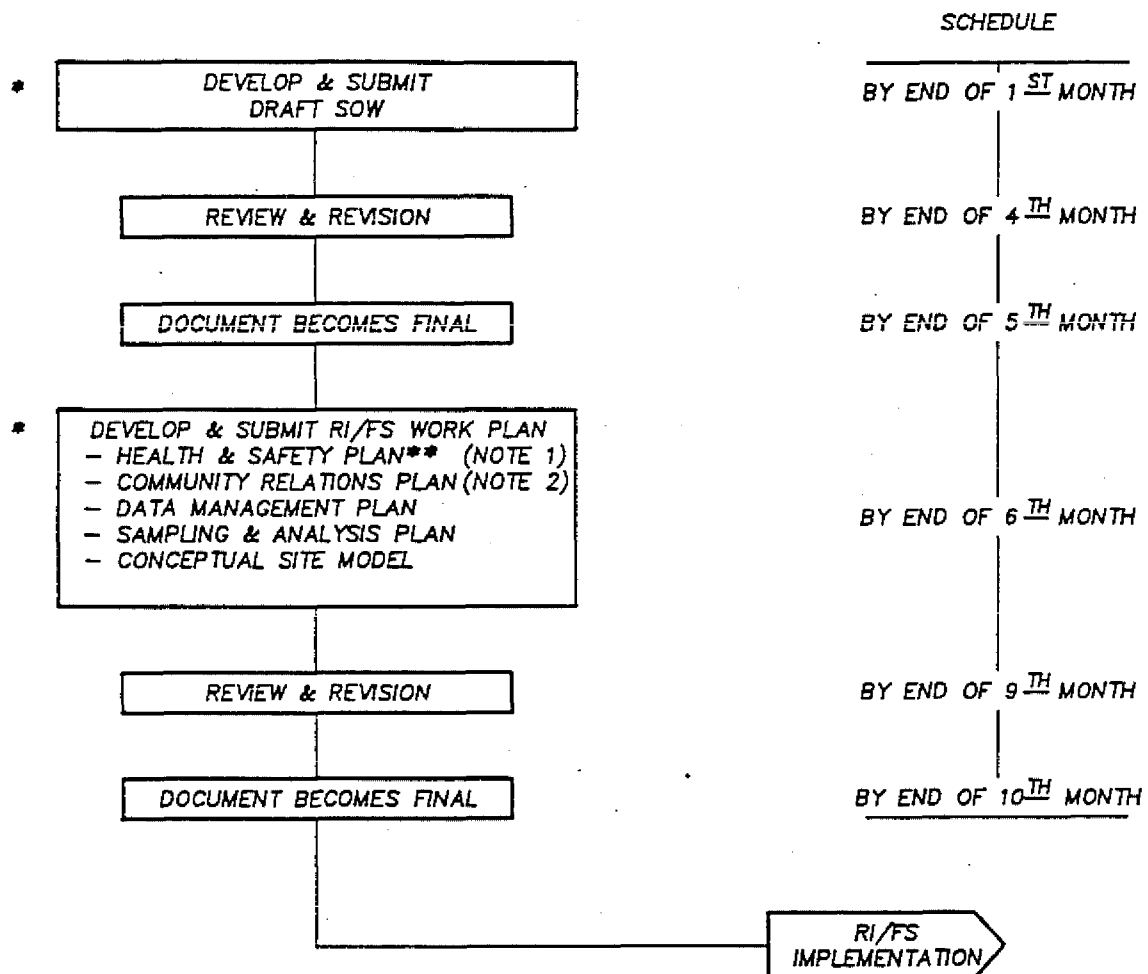


Figure 2.7 Generic Time Line for Interim Action Planning Process.



NOTE 1: THE HEALTH & SAFETY PLAN IS A SECONDARY DOCUMENT.

NOTE 2: THE WORK PLAN WILL INCLUDE A SUPPLEMENT TO THE INEL SITE-WIDE COMMUNITY RELATIONS PLAN (CRP)

- * PRIMARY DOCUMENT
- ** SECONDARY DOCUMENT

Figure 2.8 RI/FS Scoping Process.

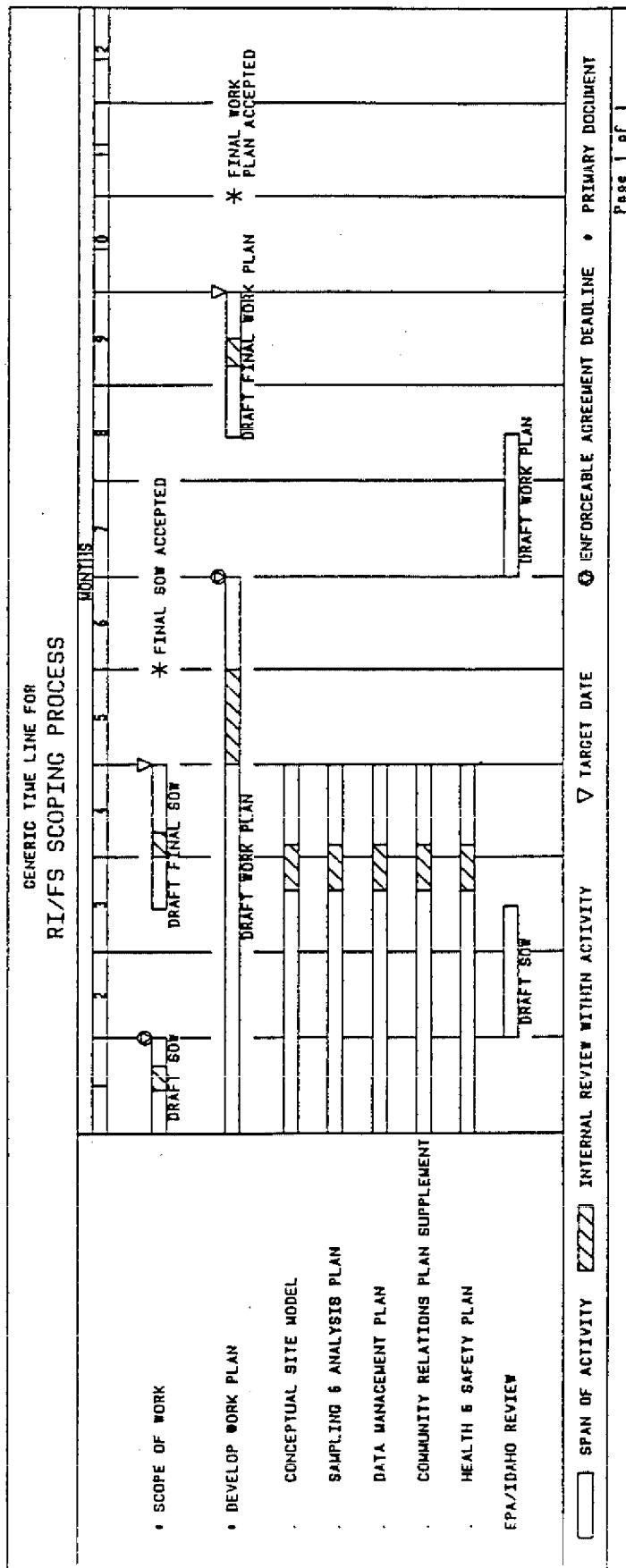


Figure 2.9 Generic Time Line for RI/FS Scoping Process.

The SOW referenced in Figure 2.8 contains a general description of the activities that will occur during the implementation of the RI/FS. It also provides adequate information about the scope of the investigation to allow Project Managers to estimate costs and amend established deadlines as necessary.

2.7 RI/FS Implementation

Figures 2.10 and 2.11 show a generic flow chart and time line for RI/FS implementation. The process follows the standard CERCLA RI/FS process and is estimated to take 20 months for completion. Treatability studies should be included in the RI/FS process as needed.

2.8 Decision Process

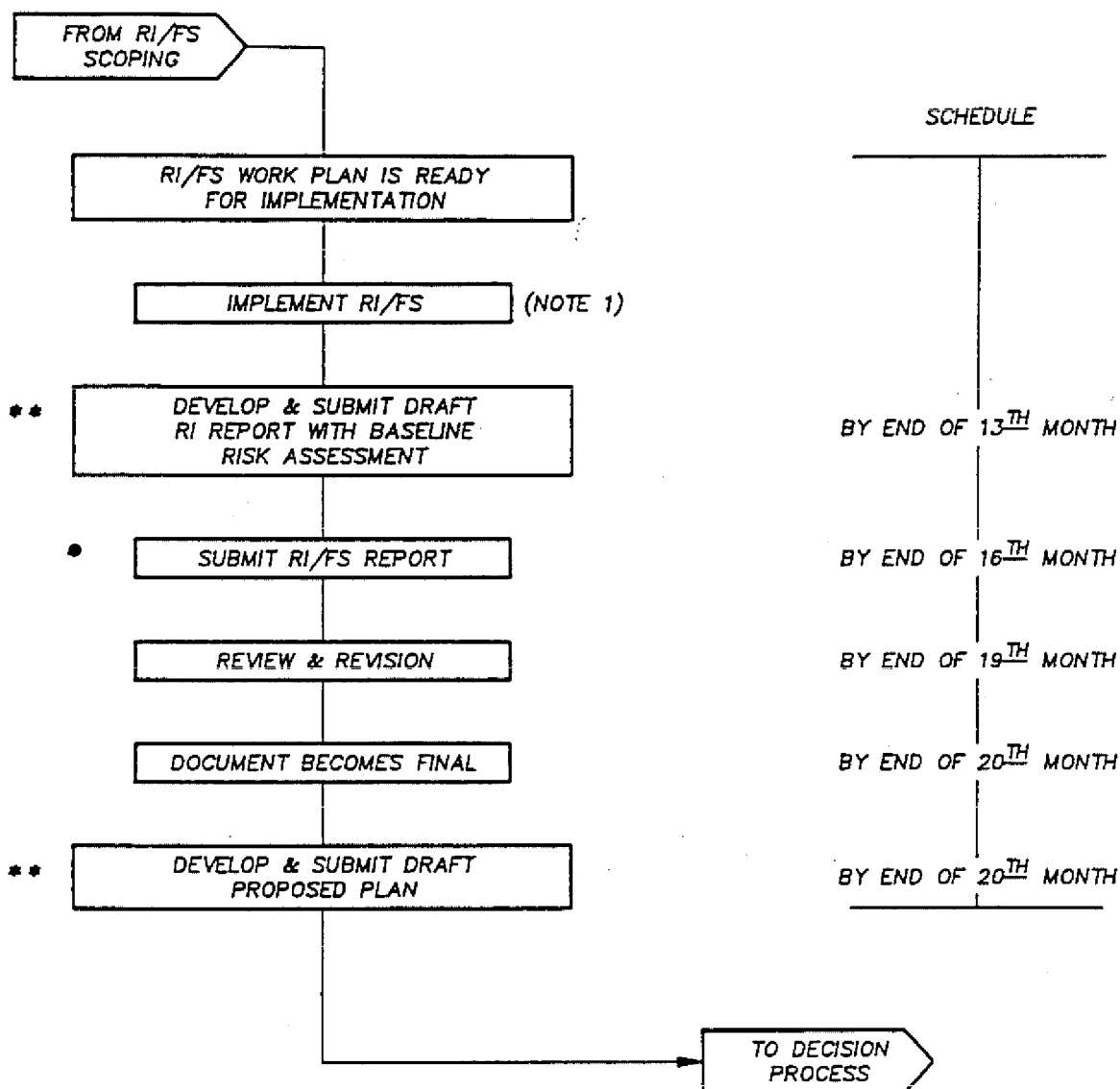
The decision process, shown in Figure 2.12 with a generic time line in Figure 2.13, is initiated when there is adequate information to select an interim or final remedy for an OU. The decision process is initiated with the submittal by U.S. DOE of the draft proposed plan for review. The OU Administrative Record is updated as necessary throughout the process to ensure that it includes all documentation pertinent to the remedial action decision. All public review and comment periods, responsiveness summaries, and other mechanics of the decision process follow the NCP, U.S. EPA guidance, and the INEL Community Relations Plan. Within 6 months of submittal of the proposed plan for lead and support agency review, the U.S. DOE should submit the draft ROD for lead and support agency review. The draft ROD then proceeds through the normal review and comment incorporation cycle of a primary document. When the ROD is signed, the decision process is complete. If the ROD requires remedial action, the Remedial Design and Remedial Action Work Plan are developed after ROD completion to define the schedules for completion of remedial design and remedial action.

Interim actions are preliminary by nature. All interim actions must be followed by a final decision and supported by a risk assessment to evaluate the residual risks to human health and the environment. In most cases, the comprehensive RI/FS for each WAG will provide the vehicle for the decision.

2.9 ROD Schedule

Figure A and Table A.1 (Appendix A) provide the schedules for all INEL OU RODs. These schedules will be refined through prioritization occurring during Project Manager meetings (see Section 4.0, Project Management) and will be based on new technical information and budget availability. Enforceable deadlines are included in the schedules. The critical-path schedule is based on the following conditions:

- Submittal of the last RI/FS report for all facility-specific WAGs (WAGs 1–9) will be prior to submittal of the draft RI/FS Work Plan for the last “blanketing” RI/FS for WAG 10.
- Submittal of the last Track 2 Summary Report for each WAG will be prior to submittal of the last RI/FS SOW for that WAG.
- All Track 1 reviews for each WAG will be completed prior to the submittal of the last Track 2 SAP for that WAG.



NOTE 1: IF THE NEED FOR ADDITIONAL TREATABILITY STUDIES OR INVESTIGATIONS ARE DISCOVERED DURING IMPLEMENTATION, ADDITIONAL SCOPE MAY BE ADDED TO A SUBSEQUENT RI/FS FOR A DIFFERENT OU, A PHASE II INVESTIGATION MAY BE INITIATED, OR OUs MAY BE REDEVELOPED.

- * PRIMARY DOCUMENT
- ** SECONDARY DOCUMENT

Figure 2.10 RI/FS Implementation.

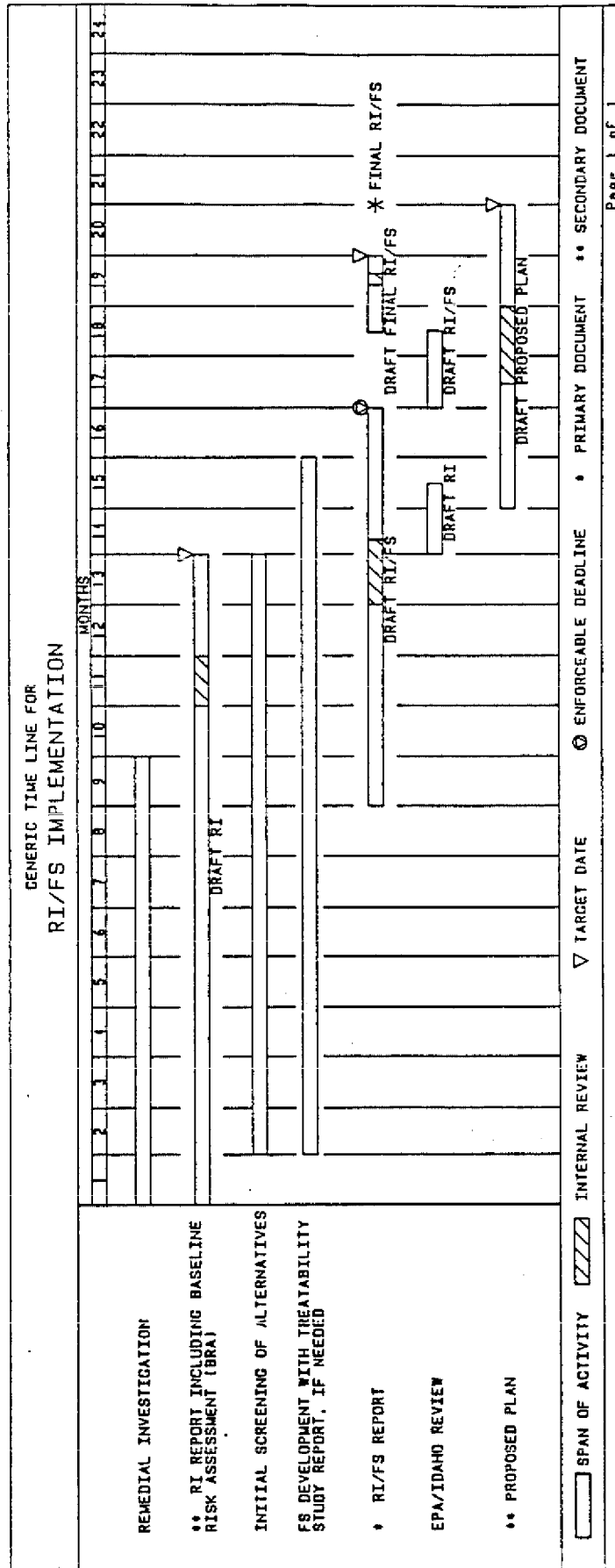
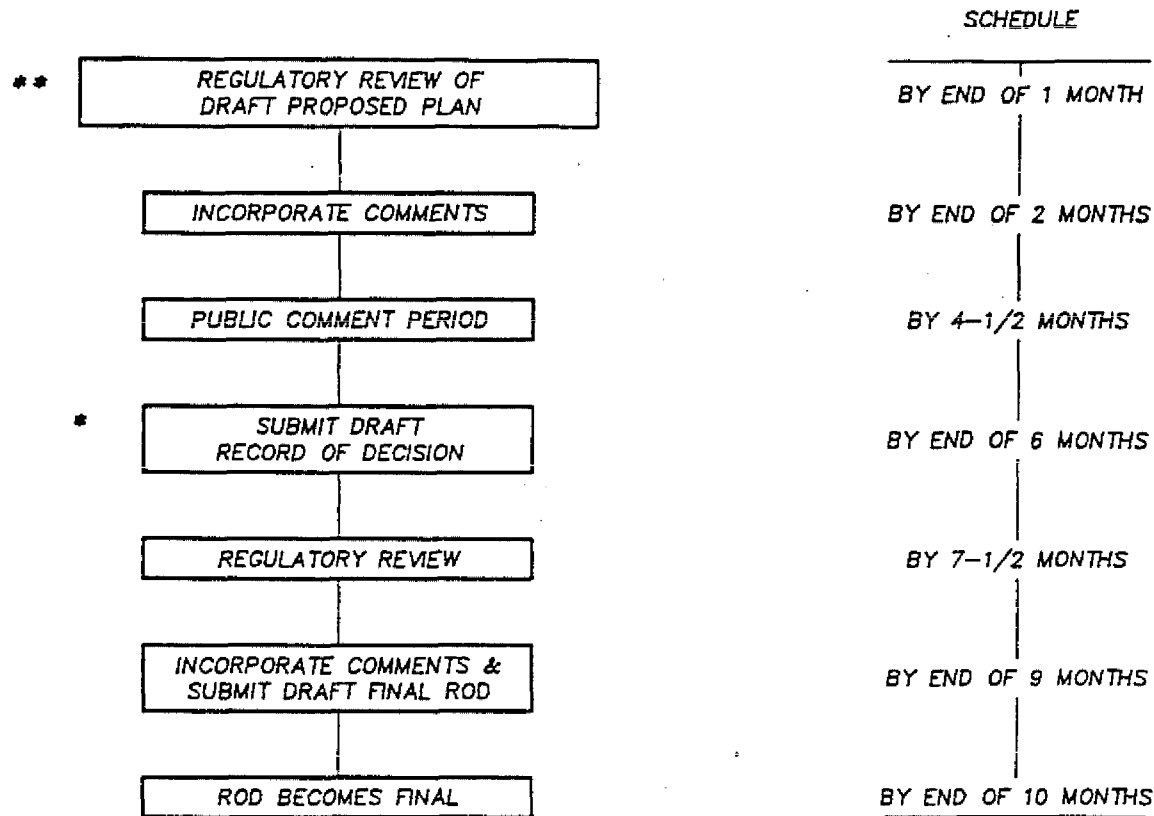


Figure 2.11 Generic Time Line for RI/FS Implementation.



- * PRIMARY DOCUMENT
 ** SECONDARY DOCUMENT

Figure 2.12 Decision Process.

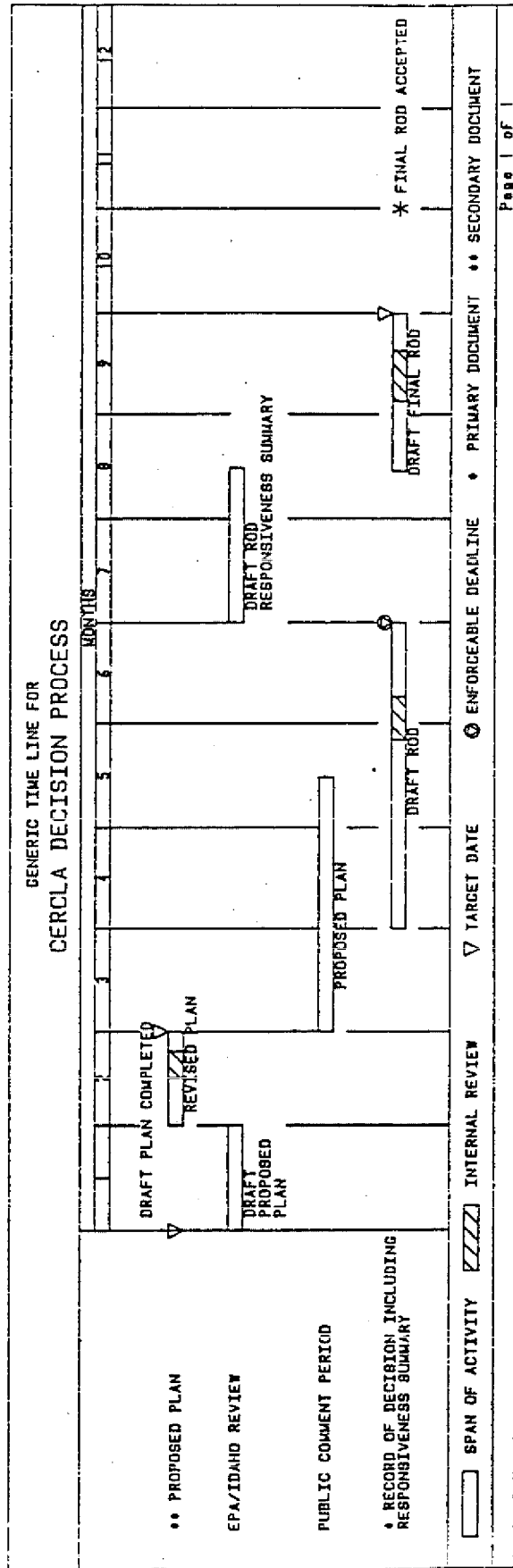


Figure 2.13 Generic Time Line for CERCLA Decision Process.

2.10 Post-ROD Process

A general process and documentation are necessary to implement RODs at the INEL. Post-ROD activities include the Remedial Design (RD) and Remedial Action (RA) phases. The RD/RA process will be streamlined, to the extent possible, to meet the CERCLA requirement to commence substantial continuous physical on-site remedial action within 15 months of issuance of a ROD.

2.11 RD/RA Scoping Process

Part 12.2 of the Agreement states that U.S. DOE will, within 21 days of issuance of the ROD, propose target dates and deadlines for completion of post-ROD documents. This requirement will be met for the RD phase through the submittal of an RD/RA SOW. The RD/RA SOW will establish deadlines for submittal of two primary documents required by Part VIII of the Agreement, the Remedial Design and the RA Work Plan. The RD/RA SOW establishes the overall strategy for managing the RD/RA and, therefore, applies to all phases and remedial work elements. The RD/RA SOW will include, at a minimum, the following:

- Strategy for RD/RA and rationale for remedial work element breakout
- Recommended RD/RA approach including:
 - critical path schedule for the RD/RA process through RA work element commencement
 - funding needs and funding availability for RD/RA
 - brief description of the scope of each remedial work element
 - plans to expedite RD/RA
- Description of issues that remain to be resolved or that require further analysis
- Identification of elements of the Community Relations Plan that will be implemented during RD/RA

Because it is not possible to define a single set of secondary documents that will be useful in all cases, the RD/RA SOW will establish the secondary documents associated with the RD phase and the target submittal dates for each ROD. Comments received on secondary RD documents will be incorporated into the following primary remedial design document, recognizing that RD secondary documents represent incremental steps toward completing the Remedial Design.

For complex remedies, the Project Managers may determine that RD/RA will be best accomplished by dividing the RD and the RA processes into smaller, more manageable remedial work elements. A remedial work element is a portion of a project that has been broken out through phasing. The criteria for phasing may be the availability of existing information, type of waste, type of media involved, technology requirements, and/or funding availability. Although the Agreement identifies the Remedial Design and the RA Work Plan as separate primary documents, the Project Managers may choose to combine these

documents into a single primary document. In this instance, elements of the RA Work Plan will be incorporated into the Remedial Design.

To streamline the RD/RA process, the RD/RA SOW is not defined as a primary or secondary document in the Agreement. The lead and support agencies will have 30 days after submittal to invoke dispute resolution regarding its content. However, all three Project Managers intend to participate in the development of the RD/RA SOW. Given the 21-day timeframe for submittal of the RD/RA SOW, it will be a brief document (10 to 15 pages, mostly figures and tables).

2.12 Remedial Design Process

In most cases, the Remedial Design phase will be initiated with the development of the RD Work Plan, a secondary document. For simple remedies, a separate RD Work Plan may not be necessary and the typical elements of the RD Work Plan could be incorporated into the RD/RA SOW. For complex remedies, a separate RD Work Plan may be developed for each identified work element. The RD Work Plan will include:

- Scope of preliminary and/or draft design documents
- Cost estimate for the RD phase
- Requirements for correlations between plans and specifications
- Identification of substantive permit requirements (see Part VII C of the Agreement)
- Identification and schedules for the preparation of other design elements (e.g., Additional Required Studies, Operation and Maintenance (O&M) Plan, Quality Assurance Project Plan (QAPjP), Site Health and Safety (H&S) Plan)
- Design approval procedures and requirements.

Given the critical nature of the RD, it will be necessary to provide the agencies with early design documents to ensure that consensus is maintained. This will be accomplished through the submittal of secondary design documents. In general, at least one secondary design document, the Preliminary Design, will be submitted. The Preliminary Design will typically represent 30% completion of plans and specifications. If available, preliminary results of any additional required studies may be included.

The Remedial Design will include:

- Plans and specifications for remedial action including design analysis and construction drawings and specifications
- Cost estimate for remedial action
- O&M Plan

- QAPjP
- Site H&S Plan
- Results of additional required studies, if any.

The Draft RD (Prefinal Design) will include all aspects of the design and be essentially complete. It will be considered representative of approximately 90% design completion. The final 10% of the design will include the resolution of comments on the Draft RD and preparation of reproducible construction drawings and specifications ready for bid advertisement. These changes and additions will be included in the Draft Final RD, which is the 100% design.

2.13 Remedial Action Process

The RA Work Plan will incorporate, by reference, pertinent aspects of the RD Work Plan. It will

- Specify any relevant changes in the content of the RD Work Plan arising from the design effort
- Update and expand upon schedules in the RD Work Plan by including dates for the submittal of primary and secondary documents for that remedial work element
- Update and expand upon the cost estimate for RA in the RD and
- Identify additional RA secondary documents

The remedial action process includes the preparation of at least one primary and one secondary document. The Prefinal Inspection Report will be a secondary document that will include:

- Outstanding construction requirements
- Actions required to resolve items
- Completion date and
- Date of final inspection

The prefinal inspection will be conducted by the Project Managers, at a minimum, and possibly by an independent fourth party. DOE will prepare the Prefinal Inspection Report. Although DOE will respond to comments received, the Prefinal Inspection Report will not be revised but, rather, will be finalized in the context of the primary RA Report. To the extent possible, RA Reports for individual work elements will be consolidated into a single RA Report.

The RA Report will be prepared at the completion of remedial action and will include:

- A brief description of outstanding items from the Prefinal Inspection Report

- Synopsis of work defined in RA Work Plan and certification that this work was performed
- Explanation of any modifications to the RA Work Plan
- Certification that the remedy is operational and functional; and
- Documentation necessary to support deletion of the site from the NPL, as discussed in Part XXV of the Agreement.

2.14 Operation and Maintenance

At the completion of O&M activities, the DOE will prepare and submit an O&M Report to the EPA and IDHW. To the extent possible, O&M Reports for individual work elements will be consolidated into a single O&M Report. This primary document will include the following elements:

- Description of O&M activities performed
- Results of site monitoring, verifying that the remedy meets the performance criteria and
- Explanation of additional O&M (including monitoring) to be undertaken at the site

3.0 WAG CONCEPT AND DESCRIPTIONS

The INEL is divided into WAGs to facilitate environmental remediation efforts. WAGs 1 through 9 generally correspond to U.S. DOE-INEL operational facilities, while WAG 10 corresponds to overall concerns associated with the Snake River Plain Aquifer (SRPA) and those surface and subsurface areas not included in the bounds of the facility-specific WAGs.

Groundwater quality of the SRPA is a significant concern. The SRPA is a dynamic system that is common to the entire INEL and is not controlled by institutional boundaries. Therefore, treating the regional concerns of the SRPA beneath the INEL as an independent OU within WAG 10 is logical from an environmental restoration viewpoint.

Individual WAGs (1–9), in addition to including all SWMUs and other potentially hazardous units associated with the WAG and the surface area encompassed by them, address subsurface concerns including the vadose zone, perched aquifers, and the SRPA to the extent those concerns are specific to the WAG and its sources of contamination. WAG 10 addresses all regional SRPA concerns related to the INEL that cannot be adequately addressed on a WAG-specific basis. In addition, WAG 10 includes those surface and subsurface areas not included in the bounds of the facility-specific WAGs. Only under certain circumstances, as agreed by the Project Managers, are regional aquifer concerns addressed in a specific WAG (1–9).

In addressing WAG-specific aquifer concerns, the individual WAG investigations are not intended to characterize the aquifer or extent of aquifer contamination to great distances beyond the WAG boundary but are intended to obtain adequate information to make WAG-specific remedial action decisions.

As a general rule, WAG (1–9) investigations are intended to be conducted within approximately 1,000 feet of WAG facility fence lines or other recognized administrative boundaries.

Validated data compiled from all WAGs are routinely evaluated by U.S. DOE to determine if potential regional (non- or multiple- WAG-specific) problems have become evident. This activity involves more than one WAG and is considered to be part of the general administrative management function of the INEL Environmental Restoration Program. As such, it does not have a lead/support agency associated with it. Status of this activity is, however, a subject of Project Managers' meetings. If a problem or potential problem is identified, the situation could be considered as a candidate for interim action, remedial action under a facility-specific WAG, or remedial action under WAG 10, as determined by the Project Managers.

Ten WAGs are located at the INEL. A separate section describes each WAG; the WAG locations at the INEL are presented in Figure 3.1. The facility-specific WAGs are separated from one another and do not present boundary overlap problems.

IDAHO NATIONAL ENGINEERING LABORATORY

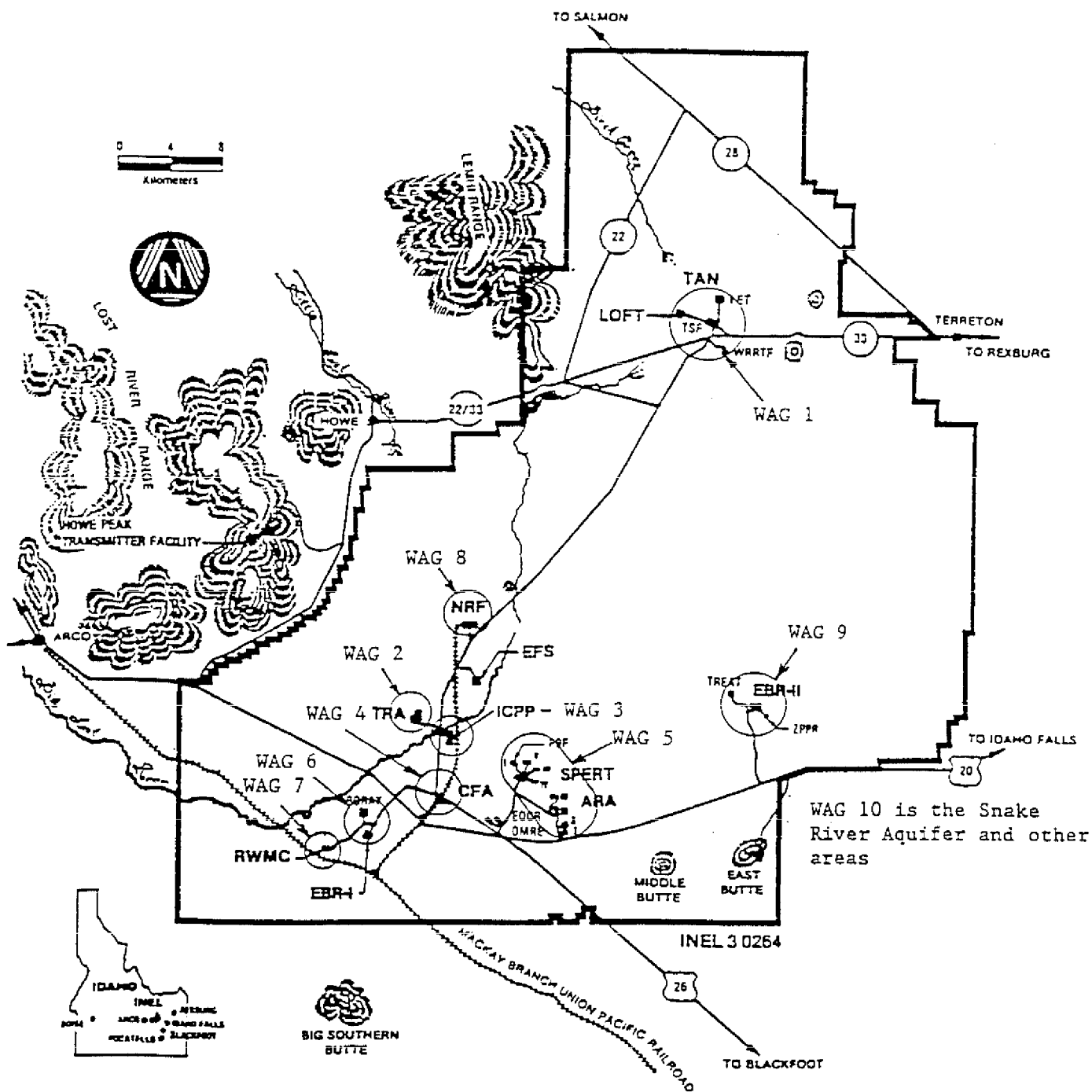


Figure 3.1 WAG locations at the INEL.

3.1 WAG 1

WAG 1 is Test Area North (TAN) of the INEL. TAN compasses several subareas:

- Technical Support Facility (TSF)
- Initial Engine Test (IET) Facility
- Loss of Fluid Test (LOFT) Facility
- Specific Manufacturing Capabilities (SMC) Facility and
- Water Reactor Research Test Facility (WRRTF)

In general, TSF consists of facilities for handling, storage, examination, and research and development of spent nuclear fuel. The Process Experimental Pilot Plant (PREPP), a facility originally built to determine the capabilities of processing transuranic waste destined for WIPP, is also located here. Potential release sites addressed under this Agreement include tanks, spills, disposal sites, and wastewater disposal systems (e.g., sumps, tanks, injection well, ponds, and lagoons).

The IET is an abandoned facility north of TSF that has numerous historical uses. IET was designed as a testing location for the nuclear jet engines developed under the Aircraft Nuclear Propulsion (ANP) Program in the 1950s and early 1960s. The few IET sites being investigated under this Agreement are tanks still in place, an old injection well, and rubble disposal sites.

LOFT and SMC are contiguous facilities west of TSF that consist of structures built for those two operations and old buildings from the ANP Program. LOFT is a facility constructed for nuclear reactor tests that has been decommissioned. SMC is an active facility manufacturing components for a U.S. Department of Defense (DOD) non-nuclear weapons system. The sites being investigated include pits, tanks, a wastewater disposal pond, and two small historic spill sites.

WRRTF primarily consists of two buildings southeast of TSF that have housed several non-nuclear tests, mostly for simulating and testing water systems used in reactors. The WRRTF sites being investigated include tanks, wastewater ponds, an injection well, a burn pit, and a sewage lagoon.

The boundary of the TAN WAG includes the TSF, IET, LOFT, SMC, and WRRTF fenced areas. It also includes the immediate areas outside of the fences where operations associated with these areas may have taken place. The WAG includes all surface and subsurface areas.

3.2 WAG 2

WAG 2 is the Test Reactor Area (TRA) that houses extensive facilities for studying the effects of radiation on materials, fuels, and equipment. The Advanced Test Reactor (ATR) is currently the only large operational reactor within TRA and is designed to produce a neutron flux that allows simulation of long-duration radiation effects on materials and fuels. It produces isotopes used in medicine, research, and industry.

TRA sites being investigated under the Agreement include pits, tanks, rubble piles, ponds, cooling towers, wells, french drains, and spills. One of the higher priority sites within TRA is a percolation pond that has been used for the disposal of radioactively contaminated wastewater.

The boundary of WAG 2 includes the area within the TRA fence and the areas immediately outside the fence where waste operations have taken place. The WAG includes all surface and subsurface areas.

3.3 WAG 3

WAG 3 is the Idaho Chemical Processing Plant (ICPP) that houses reprocessing facilities for Government defense and research spent fuel. Facilities at ICPP include spent fuel storage and reprocessing areas, a waste solidification facility and related waste storage bins, remote analytical laboratories, and a coal-fired steam generating plant.

ICPP sites investigated under the Agreement include facilities associated with wastewater disposal systems (e.g., sumps, ponds, and an injection well), spills, and tank farm storage of hazardous substances.

The boundary of WAG 3 includes the area within the ICPP fence and those immediately adjacent areas where waste activities have taken place; it includes all surface and subsurface areas.

3.4 WAG 4

WAG 4 is the Central Facilities Area (CFA) where services for the entire site are headquartered. These services include environmental laboratories, security, fire protection, medical facilities, communications systems, warehouses, a cafeteria, vehicle and equipment pools, bus system, and laundry. The U.S. DOE Radiological and Environmental Sciences Laboratory and U.S. Geological Survey offices are also located here.

CFA sites investigated under the Agreement include historical spills, tanks, landfills, ponds, leach fields, and leach pits.

The boundary of WAG 4 is loosely defined as CFA does not have an enclosing fence. However, many CFA sites investigated under the Agreement are adjacent to buildings (e.g., tanks and dry wells). Others, including landfills and a gravel pit adjacent to one of the landfills, are located on the outskirts of CFA. The WAG includes all surface and subsurface areas.

3.5 WAG 5

WAG 5 consists of the Power Burst Facility (PBF) and Auxiliary Reactor Area (ARA). PBF is located in an area originally constructed for the Special Power Excursion Reactor Tests (SPERT). Four SPERT reactors were built beginning in the late 1950s in a radial array around what is now the PBF control/personnel building complex. All of the SPERT reactors were removed and the SPERT facilities have undergone partial or complete decontamination and decommissioning (D&D). The PBF reactor is still operational but is in a standby mode. The ARA consists of four separate groupings of buildings in which

various activities have occurred, including the operation of test reactors. All of the ARA reactors were removed from the facility and have undergone partial or complete D&D.

PBF/ARA sites investigated under the Agreement include tanks and components of wastewater disposal systems (e.g., evaporation ponds, percolation ponds, leach fields, pits, and dry wells).

The boundary of WAG 5 encompasses the facility locations presently or historically used within the PBF and ARA areas and those immediately adjacent areas where waste activities may have taken place. The WAG includes all surface and subsurface areas.

3.6 WAG 6

WAG 6 consists of the Experimental Breeder Reactor No. I (EBR-I) and Boiling Water Reactor Experiment (BORAX) areas. Both the EBR-I and BORAX areas were originally constructed to house test reactors and were decommissioned. EBR-I is now a National Historic Landmark, open to the public.

Historically, the BORAX area housed five different reactors, but many of the facilities were dismantled or moved and no operations (other than monitoring) take place in the area.

EBR-I/BORAX sites investigated under the Agreement are primarily old tanks, but also include a small spill area and several liquid and solid waste disposal locations.

The boundary of WAG 6 is directly related to the EBR-I/BORAX facility locations and areas immediately adjacent to them; it includes all surface and subsurface areas.

3.7 WAG 7

WAG 7 is the Radioactive Waste Management Complex (RWMC) that was established in 1952 and is a controlled area for disposal of solid radioactive wastes generated in INEL operations. The Stored Waste Examination Pilot Plant (SWEPP) is also located at the RWMC and is used for certifying waste destined for shipment to WIPP.

The primary RWMC site being investigated under the Agreement is the Subsurface Disposal Area (SDA) within the RWMC. It includes numerous pits, trenches, and vaults where radioactive and organic wastes were placed as well as a large pad where waste was placed above grade and covered.

The Transuranic Storage Area (TSA) within the RWMC has been used since the early 1970s for retrievable storage of transuranic waste on earthen-covered pads and in facilities.

The boundary of WAG 7 is clearly defined as the RWMC fence, with the SDA as a fenced portion within the RWMC. It includes all surface and subsurface areas.

3.8 WAG 8

WAG 8 is the Naval Reactors Facility (NRF) where prototype reactors are operated for reactor plant development and in training of naval officers and enlisted personnel. NRF also supports research and devel-

opment efforts on reactor materials by preparation and examination of irradiation test specimens and by examination of expended fuel from naval reactors.

NRF sites investigated under the Agreement include landfills, old spills, wastewater disposal systems (e.g., ponds, ditches, basins, drains, and drain fields) and storage areas.

WAG 8 is primarily the developed area of the NRF site. However, it also includes waste operations that extended or extend outside the NRF developed area, such as the wastewater ditch. All of WAG 8 is within the overall 7-square mile NRF site and includes surface and subsurface areas.

3.9 WAG 9

WAG 9 is the Argonne National Laboratory – West (ANL–W) that is primarily devoted to the testing of breeder–reactor technology. It houses the Experimental Breeder Reactor II (EBR–II), the first pool–type liquid–metal reactor. In addition to EBR–II, the ANL–W complex has four other reactors and two fuel examination facilities.

ANL–W sites being investigated under the Agreement include tanks and wastewater handling/disposal systems such as ditches, ponds, pits, drains, etc.

The boundary of WAG 9 is basically the ANL–W fence; however, operations that extended or extend outside of the fence, such as the wastewater ditch, are included. WAG 9 includes all surface and subsurface areas described above.

3.10 WAG 10

WAG 10 includes miscellaneous surface sites and liquid disposal areas throughout the INEL that are not included within other WAGs. WAG 10 also includes regional Snake River Plain Aquifer concerns related to INEL that cannot be addressed on a WAG–specific basis. Specific sites currently recognized as part of WAG 10 include:

- Liquid Corrosive Chemical Disposal Area (LCCDA) located between WAGs 6 and 7
- Organic Moderated Reactor Experiment located between WAGs 4 and 5
- Former ordnance areas, including the Naval Ordnance Disposal Area (NODA) located at numerous sites within the INEL

The boundary of WAG 10 is the INEL boundary, or beyond as necessary to encompass real or potential impact from INEL activities, and any areas within the INEL not covered by other WAGs.

3.11 Drinking Water Actions

U.S. DOE presently monitors drinking–water wells in and around the INEL in accordance with applicable Federal and State regulations. U.S. DOE will routinely make available the resulting data to Project Managers.

In addition, within 90 days of the effective date of the Agreement, U.S. DOE will provide to the Project Managers historical monitoring data for INEL drinking–water systems for which there are potential impacts to drinking–water quality from hazardous substances released at the INEL. The Project Managers will review the data and, at their earliest opportunity, identify and agree upon additional monitoring requirements for these systems.

In cases where drinking water monitoring results exceed promulgated standards, the Project Managers will determine if an alternate source of water is needed and U.S. DOE will provide an alternate source of water for the affected system(s) as agreed upon under this activity. Any additional actions agreed upon (i.e., interim actions) would be carried out under other applicable provisions of the Agreement and Action Plan.

4.0 PROJECT MANAGEMENT

The purpose of this section is to identify and describe key project management activities and responsibilities that are important in carrying out the terms of the Agreement and Action Plan.

4.1 Project Manager Roles and Responsibilities

As provided in Part VII of the Agreement, each Party to the Agreement is represented by a Project Manager (see Appendix D). The Project Manager shall:

- Manage INEL remedial activities for their respective agencies pursuant to the Agreement and Action Plan
- Serve as primary contacts and coordinators for their respective agencies for purposes of implementing the Agreement and Action Plan
- Prioritize work
- Coordinate activities of WAG Managers (WMs), who are identified by the Project Managers, as necessary
- Approve and sign No Further Action Determinations
- Evaluate and approve changes to OUs based on investigation findings, and
- Prepare monthly progress reports

The roles and responsibilities of the WMs are:

- Manage remedial activities under the Action Plan at an assigned WAG(s) under the direction of respective Project Manager
- Serve as agency contact for the Project Manager for assigned WAG(s)
- Participate in project management meetings as requested by respective Project Managers

4.2 Lead Agency Concept

Although U.S. DOE is the lead agency with respect to implementation of the Agreement, the Parties have agreed to a lead agency approach to minimize duplication of effort and maximize oversight productivity. The lead agency for a specific WAG is responsible for overseeing and coordinating the activities conducted under this Agreement.

The agency that is not the lead agency is designated as the support agency. The support agency will also provide comments to U.S. DOE and will lend support to the lead agency as resources permit.

Designation of lead agency is a joint determination by U.S. EPA and IDHW. The decision on lead designation is based primarily on the resources available to undertake lead responsibilities at that WAG. At the

time of execution of this Agreement, IDHW is the lead agency at WAG 7 (RWMC) and U.S. EPA is the lead agency at all other WAGs.

4.3 Project Managers' Meeting

Project Managers' meetings are held as described in Part 8.9 of the Agreement or more frequently as needed. These meetings are used to conduct the business necessary to implement the Action Plan. Any agreements or commitments resulting from Project Managers' meetings are to be signed by all Project Managers as soon as possible after the meeting.

4.4 Recommended Training and Qualifications

To effectively and efficiently implement this Action Plan, appropriate training and qualifications for all Parties' Project Managers and WMs are necessary. While the following list of training and qualifications is not required or subject to review and approval by any Party, it is recommended that all Project Managers and WMs have expertise or obtain training on a timely basis in the following subject areas:

- Agreement and Action Plan
- Project management
- CERCLA, NCP, RCRA, NEPA, HWMA, and the Atomic Energy Act (AEA) as they pertain to this Agreement and Action Plan
- Remedial action process
- Available remedial action technologies
- OSHA Hazardous Waste Operations, per 29 CFR 1910.120
- Basic radiation protection
- Risk assessment
- Public participation

5.0 DATA QUALITY OBJECTIVES AND RISK ASSESSMENT

The collection and use of appropriate quantities and quality of data to make remedial action decisions are a major consideration in conducting CERCLA investigations. Existing data are used whenever they meet the Data Quality Objectives (DQOs) for the decision being made, or can be validated with minimal additional supporting data of higher quality. DQOs are defined as qualitative and quantitative statements that specify the quality of data required to support decisions during the remedial response process. Because decisions under CERCLA are risk- or health-based, DQOs should be developed under the framework of a conceptual site model relating contaminant release to potential exposure routes, contaminant toxicity, and receptors.

The development of DQOs and risk assessment procedures for the RI/FS process at INEL will follow the guidance found in CERCLA and the NCP, as well as in U.S. EPA guidance documents. Reasonable future-use scenarios will be developed for evaluation purposes in accordance with the latest CERCLA risk assessment guidance. DQOs and risk assessment for the Preliminary Scoping Track 2 defined in this Action Plan require more detailed discussion because they are not specifically covered in the U.S. EPA guidance documents.

For a Track 2, the following DQO/risk assessment process is applied:

- Develop a statement of the problem at the OU.
- Identify the possible outcomes of the Track 2 (No Further Action, interim action, RI/FS scoping).
- Determine the level of acceptable risk for the OU. This is defined in the NCP as in the range of 10^{-4} to 10^{-6} for individual lifetime cancer risk. For non-carcinogens, a hazard index of less than 1 represents acceptable risk.
- Develop a conceptual model of the OU that identifies probable exposure pathways.
- Evaluate attenuation/dilution effects expected between the source and postulated receptor.
- Develop rough estimates on risk drivers by evaluating the concentration and toxicity ($C_i T_i$) for hazardous substances present (where T_i = slope factor or the inverse of the reference dose $[1/RfD]$).
- Determine the approximate concentration of the major contaminants that, if present, would pose unacceptable risk for a pathway. This requires assumptions regarding the population at risk and their activities, leading to an assumed exposure scenario. Based on the level of acceptable risk, the exposure scenario, attenuation/dilution effects, and the toxicity of the contaminant, a concentration of the contaminant at the source is calculated for carcinogens and separately for non-carcinogens.

$$\text{If risk (R) for a given pathway is } R = \sum_i C_{ir} T_i \quad (1)$$

where C_{ir} = concentration at the receptor, and $C_{ir} = C_i A_i$,

where A_i reflects the multiple factors that affect the change in concentration from the source to the receptor,

$$\text{then } C_{i(\text{calc})} = \frac{R}{T_i A_i} \quad (2)$$

- Design the sampling program to include special emphasis on the calculated concentrations of contaminants ($C_{i(\text{calc})}$).
- Based on the concentrations of the contaminants determined as a result of the sampling program, estimate the total risk for major contaminants over the significant pathway(s). This is calculated separately for carcinogens and non-carcinogens.

$$\text{Risk (R}_t\text{)} = \sum_{P_0}^{P_n} \sum_i C_{ir} T_i \quad (3)$$

where P_0 to P_n are the pathways and

R_t = total risk posed by the OU

- If the risk estimate of the assumed exposure scenario is less than the level of acceptable risk for the OU, no further action is required.

This discussion of DQOs for the Track 2 process will be expanded and presented in a supplemental document that, with the approval of the Project Managers, will be applied as site-wide generic guidance. This supplemental document, "Guidance for Assessing Low Probability Hazard Sites at the INEL," should be issued by September 1991.

The development of DQOs is different for the Preliminary Scoping Track 1 or the Interim Action Planning Process because neither of these tracks requires data collection. For these two tracks, DQOs should address the criteria for the acceptance of existing data for the decision to be made, which may include validation through additional supporting data of higher quality. The risk assessment process for Track 1 will be informal and will qualitatively assess potential exposure routes, pathways for contaminant migration, toxicity of known or suspected contaminants, and receptor populations. The risk assessment for an interim action or a Track 2 will also be qualitative.

At the conclusion of an interim action for which No Further Response action is anticipated, data of sufficient quality will be collected to support a quantitative risk assessment. DQOs will be established for this activity according to the U.S. EPA guidance. The risk assessment will be completed prior to entering the final decision process for the WAG. The purpose of the risk assessment is to show that the interim action resulted in acceptable risk levels at the site.

As with DQOs, risk assessment guidance for the INEL will be expanded and presented in a supplemental document.

Appendix A
Enforceable Deadlines,
Operable Units and CERCLA Process Tracks,
and Schedule

TABLE A.1. INEL ENFORCEABLE DEADLINES

<u>WAG</u>	<u>ACTIVITY</u>	<u>OPERABLE UNIT</u>	<u>ENFORCEABLE DEADLINE^a</u>	<u>DATE^b</u>
WAG 01 TAN	Injection Well/ Drinking Water Interim Action	1-07A	Draft ROD Submitted for Review	Jun-1992
	Injection Well/ Drinking Water RI/FS	1-07B	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Aug-1991 Jan-1992 Sep-1993 Jul-1994
	WAG 01 Comprehensive RI/FS	1-10	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Jul-1995 Dec-1995 Aug-1997 Jun-1998
WAG 02 TRA	Perched Water RI/FS	2-12	Draft SOW Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Apr-1991 Nov-1992 ^c Sep-1993 ^c
	Warm Waste Pond Interim Action	2-10	Draft ROD Submitted for Review	Nov-1991
	WAG 02 Comprehensive RI/FS	2-13	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Jul-1996 Dec-1996 Aug-1998 Jun-1999
WAG 03	WAG 03 Comprehensive RI/FS	3-13	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Aug-1995 Jan-1996 Sep-1997 Jul-1998
WAG 04 CFA	Motor Pool Pond RI/FS	4-11	Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Dec-1991 Oct-1992
	Landfills RI/FS	4-12	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Aug-1992 Jan-1993 Sep-1994 Jul-1995
	WAG 04 Comprehensive RI/FS	4-13	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Aug-1996 Jan-1997 Sep-1998 Jul-1999
WAG 05 PBF/ARA	Chemical Pond RI/FS	5-10	Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Dec-1991 Oct-1992
	PBF Evaporation Pond Interim Action	5-13	Draft ROD Submitted for Review	Jun-1992
	WAG 05 Comprehensive RI/FS	5-12	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Sep-1996 Feb-1997 Oct-1998 Aug-1999

TABLE A.1 (continued). INEL ENFORCEABLE DEADLINES

<u>WAG</u>	<u>ACTIVITY</u>	<u>OPERABLE UNIT</u>	<u>ENFORCEABLE DEADLINE*</u>	<u>Date*</u>
WAG 06/10 EBR 1/BORAX AND MISC. SITES	WAG 6/10 Comprehensive RI/FS	10-04 (inc. 6-05)	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Jun-1998 Nov-1998 Jul-2000 May-2001
	Ordinance Interim Action	10-05 (inc. 4-01)	Draft ROD Submitted for Review	Apr-1992
WAG 07 RWMC	Pit 9 Interim Action	7-10	Draft ROD Submitted for Review	Jun-1992
	Pad A RI/FS	7-12	Draft SOW Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	May-1991 Dec-1992 ^c Oct-1993 ^c
	Vadose Zone Organics RI/FS	7-08	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Aug-1991 Jan-1992 Sep-1993 Jul-1994
	TRU Pits and Trenches RI/FS	7-13	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Aug-1995 Jan-1996 Sep-1997 Jul-1998
	WAG 07 Comprehensive RI/FS	7-14	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Jul-1996 Dec-1996 Aug-1998 Jun-1999
WAG 08 NRF	Ditch RI/FS	8-07	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Nov-1991 Apr-1992 Dec-1993 Oct-1994
	WAG 08 Comprehensive RI/FS	8-08	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Sep-1995 Feb-1996 Oct-1997 Aug-1998
WAG 09 ANL-W	WAG 09 Comprehensive RI/FS	9-04	Draft SOW Submitted for Review Draft Work Plan Submitted for Review Draft RI/FS Submitted for Review Draft ROD Submitted for Review	Jul-1996 Dec-1996 Aug-1998 Jun-1999

* Post-ROD deadlines will be identified as required by Part 12.2 of the Agreement. Table A.1 will be updated as appropriate throughout the life of the Action Plan to reflect new post-ROD deadlines.

* These schedules may be significantly reduced pending development of the SOW and evaluation of existing data.

* Based on SOWs submitted, these dates may be reduced by up to one year.

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Scoping Track 2	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
None	X					WAG 1: TEST AREA NORTH (TAN) -----	
						IET Burial Pit NE of IET	IET-02
						IET Septic Tank (TAN-710) and Filter Bed	IET-08
						LOFT Injection Well (TAN-733)	LOFT-04
						LOFT Septic Tank & Drainfield (TAN-762)	LOFT-09
						LOFT Dry Well (TAN-333)	LOFT-13
						SMC Septic Tank and Drain Field (TAN-629)	SMC-01
						TSF Brine Pit N of TAN-608	TSF-16
						TSF Septic Tank E of TAN-602	TSF-30
						WRRTF Septic Tank & Sandfilters (TAN-737)	WRRTF-07
1-01					X	LOFT Asbestos Piping	-
						LOFT Buried Asbestos Pit	-
						TSF Transite (Asbestos) Contamination (Near TSF Gravel Pit)	-
						TAN-607-A Room 161 Contaminated Pipe	-
						RPPSA Buildings 647/648 and Pads	-
						IET Foam Stabilizer Tank (TAN-317)	IET-05
						IET Injection Well (TAN-332)	IET-06
						LOFT Rubble Pit S of LOFT Disposal Pond	LOFT-03
						LOFT Foam Solution Tank (TAN-119)	LOFT-07
						LOFT Cryogen Pits (3) E of TAN-829	LOFT-11
						TSF Diesel Tank (3000 gal.) W. of TAN-607 & Fuel Spill	TSF-01
						TSF Gravel Pit/Acid Pit	TSF-04
						TSF Three Clarifier Pits E of TAN-604	TSF-11
1-02					X	IET Gasoline Storage Tank (TAN-318)	IET-01
						IET Lube Oil Tank (TAN-316)	IET-09
						LOFT Two Fuel Tanks (2) TAN-109 A & B	LOFT-05
						LOFT Slop Tank E of TAN-631	LOFT-06
						LOFT Tank in Borrow Pits (TAN-110)	LOFT-08
						TSF Gasoline Tank N of TAN-610	TSF-13
						TSF Fuel Oil Tank NW of TAN-603	TSF-14
						TSF Fuel Oil Tank W of TAN-603	TSF-15

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action Track 2	RI/FS	Sites Within Operable Unit	Site Code
1-03					WAG 1 (continued)	
					TSF Oil Sumps (TAN-609)	TSF-24
					TSF Fuel Tank Under SW Corner of TAN-607	TSF-25
					TSF Oil Tank S of TAN-601 (Between Gatehouse & Substation)	TSF-32
					TSF T-11 Fuel Tank E of TAN-602	TSF-33
					WRRTF Diesel Fuel Tank (TAN-103)	WRRTF-09
					WRRTF Gasoline Tank (TAN-644)	WRRTF-10
					TSF Bottle Site	
					TSF Service Station Spill (TAN-664)	TSF-02
1-04					TSF Burn Pit	TSF-03
					WRRTF Burn Pit	WRRTF-01
					LOFT Disposal Pond (TAN-750)	LOFT-02
					TSF Acid Neutralization Sump N of TAN-602	TSF-12
					TSF Two Neutralization Pits N of TAN-649	TSF-17
					TSF Cautics Tank V-4 S of TAN-616	TSF-19
					TSF Two Neutralization Pits N of TAN-607	TSF-20
					TSF Acid Pond (TAN-735)	TSF-29
					TSF Acid Pit W of TAN-647	TSF-31
1-05						
					IET Stack Rubble Site	IET-04
					IET Hot Waste Tank (TAN-319)	IET-07
					TSF TAN/TSF-1 Area (Soil Area)	TSF-06
					TSF Intermediate-Level (Radioactive) Waste Disposal System	TSF-09
					TSF Drainage Pond (TAN 782)	TSF-10
					TSF Contaminated Tank SE of Tank V-3	TSF-18
					TSF IET Valve Pit	TSF-21
					TSF PM-2A Tanks (TAN-710 A88)	TSF-26
					WRRTF Radioactive Liquid Waste Tank (TAN-735)	WRRTF-04

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action Track 2	RI/FS	Sites Within Operable Unit	Site Code
1-06		X			WAG 1 (continued)	
					LOFT Diesel Fuel Spills (TAN-629)	LOFT-01*
					LOFT Sulfuric Acid Spill (TAN-771)	LOFT-10*
					TSF Disposal Pond	TSF-07*
					TSF HIRE III Mercury Spill Area	TSF-08*
1-07A			X		TSF Injection Well	TSF-05
					TSF Drinking Water Potential Contamination	TSF-23
1-07B				X		
					TSF Injection Well	TSF-05
					TSF Drinking Water Potential Contamination	TSF-23
1-08		X				
					TSF Railroad Turntable	TSF-22
					TSF Sewage Treatment Plant (TAN-623) and Sludge Dry Beds	TSF-28
					WRRTF Injection Well (TAN-331)	WRRTF-05
1-09			X			
					TSF Contaminated Well Water Spill	-
					TAN-603 French Drain	-
					WRRTF Two-Phase Pond (TAN-763)	WRRTF-02
					WRRTF Evaporation Pond (TAN-762)	WRRTF-03
					WRRTF Sewage Lagoon	WRRTF-06
1-10				X		
					WAG 1 Comprehensive RI/FS, including: TSF Paint Shop Floor Drain Leach Field (W of TAN-636)	TSF-27**

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action	R1/FS	Sites Within Operable Unit	Site Code
WAG 2: TEST REACTOR AREA (TRA)						
None	X				TRA MTR Construction Excavation Pile	TRA-10
					TRA ETR Excavation Site Rubble Pile	TRA-23
					TRA Guardhouse Construction Rubble Pile	TRA-24
					TRA Sewer Plant Settling Pond Rubble Pile	TRA-25
					TRA Rubble Site by USGS Observation Well	TRA-26
					TRA North Storage Area Rubble Pile	TRA-27
					TRA North (landfill) Rubble Site	TRA-28
					TRA ATR Construction Rubble	TRA-29
					TRA West Road Rubble Pile	TRA-32
					TRA West Staging Area/Drainage Ditch Rubble Site	TRA-33
2-01		X			TRA Paint Shop Ditch (TRA-606)	TRA-02*
2-02		X			TRA Inactive Gasoline Tank at TRA-605	TRA-14
					TRA Inactive Gasoline Tank at TRA-616	TRA-17
					TRA Inactive Gasoline Tank at TRA-619	TRA-18
					TRA Inactive Tank, North Side of MTR-643	TRA-21
					TRA Inactive Diesel Fuel Tank at ETR-648	TRA-22
2-03			X		TRA-614 Oil Storage North	
					TRA Acid Spill Disposal Pit (TRA-608)	TRA-01
					TRA French Drain at TRA-645	TRA-11
					TRA Fuel Oil Tank Spill (TRA-727B)	TRA-12
					TRA Brine Tank (TRA-731) at TRA-631	TRA-20
					TRA Tunnel French Drain (TRA-731)	TRA-40

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
2-04			X		WAG 2 (continued)	
					TRA PCB Spill at TRA-619	-
					TRA PCB Spill at TRA-626	-
					TRA-627 #5 Oil Spill	-
					TRA PCB Spill at TRA-653	-
					TRA-670 Petroleum Product Spill	-
					TRA PW13 Diesel Fuel Contamination	-
					TRA Spills at TRA Loading Dock (TRA-722)	TRA-09
					TRA North Storage Area	TRA-34
2-05			X		TRA-603/605 Tank	-
					TRA Hot Waste Tanks #2, #3, #4 at TRA-613	TRA-15
					TRA Inactive Radioactive Contaminated Tank at TRA-614	TRA-16
					TRA Rad Tanks 1 and 4 at TRA-630, Replaced by Tanks 1, 2, 3, & 4	TRA-19
2-06			X		TRA Beta Building Rubble Site	TRA-30
					TRA West Rubble Site	TRA-31
					TRA Rubble Site E of West Road Near Beta Bldg Rubble Pile	TRA-35
2-07			X		TRA-653 Chromium-Contaminated Soil	-
					TRA EIR Cooling Tower Basin (TRA-751)	TRA-36
					TRA ATR Cooling Tower (TRA-771)	TRA-38
					TRA MTR Cooling Tower N of TRA-607	TRA-39
2-08			X		TRA MTR Canal in Basement of TRA-603	TRA-37

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
WAG 2 (continued)						
2-09		X			TRA Sewage Treatment Plant (TRA-624) & Sludge Pit (TRA-732) TRA Cold Waste Disposal Pond (TRA-702) TRA Final Sewage Leach Ponds (2) by TRA-732	TRA-07 TRA-08 TRA-13
2-10			X		TRA Warm-Waste Pond (Sediments)	TRA-03B
2-11		X			TRA Warm-Waste Leach Pond (TRA-758) TRA Warm-Waste Retention Basin (TRA-712) TRA Waste Disposal Well, Sampling Pit (764) and Sump (703)	TRA-03A TRA-04 TRA-05
2-12				X	Perched Water RI/FS	-
2-13				X	WAG 2 Comprehensive RI/FS, including: TRA Chemical Waste Pond (TRA-701)	- TRA-06**

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Scoping Track 2	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
None	X					WAG 3: CHEMICAL PROCESSING PLANT (CPP) -----	
						Grease Pit South of CPP-637	CPP-43
						Pickling Shed East of CPP-631	CPP-52
						Septic Tank East of CPP-655	CPP-70
						Seepage Pits West of CPP-656	CPP-71
						CPP-758 Cesspool East of CPP-651	CPP-72
						Leaching Cesspool East of CPP-T-5	CPP-73
						Seepage Pit West of CPP-626	CPP-74
						Septic Tank and West of CPP-603	CPP-75
						Septic Tank and West of CPP-659	CPP-76
						Seepage Pit and Cesspool North of CPP-662	CPP-77
3-01				X		PCB Transformer Yard (CPP-705) PCB Transformer Yard (CPP-731) PCB Staging Area West of CPP-660 PCB Spill in CPP-718 Transformer Yard	CPP-49 CPP-50 CPP-51 CPP-61
3-02				X		Soil Contamination NW of CPP-642 Contaminated Paint Chips and Pad S of CPP-603 Gas Storage Building, Now Location of CPP-668 Solid Waste Storage Bin South of CPP-601 CPP Injection Well (NAH-FE-304) CPP Gravel Pits #1 and #2 Fire Training Pits Between CPP-602 and CPP-603 Paint and Paint Solvent Area South of CPP-697 Drum Storage Area West of CPP-660 Mercury Contaminated Area South of CPP-T-15 Sulfuric Acid Spills East of CPP-606 Kerosene Tank Overflow West of CPP-633 Paint Shop at Present Location of CPP-645 Mercury Contaminated Area Near CPP-1B-4 Hexone Spill by CPP-710	CPP-07 CPP-12 CPP-18 CPP-21 CPP-23* CPP-37* CPP-41 CPP-53 CPP-54 CPP-55* CPP-57 CPP-59* CPP-60 CPP-62 CPP-63*

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
3-03	X				WAG 3 (continued)	
					Hexone Spill West of CPP-660	CPP-64*
					CPP Sewage Treatment Plant Lagoons	CPP-65
					CPP CF5GP Fly Ash Pit	CPP-66
3-04	X				Abandoned Gasoline Tank CPP VES-UTI-652	CPP-68
					CPP Percolation Ponds #1 and #2	CPP-67
					Friable Transite on CPP-601, 602, 603, 604, 605, 606, 640, 644, and 648	CPP-38
3-05		X			Sewage Treatment Plant South of CPP-664	CPP-14
3-06	X				Contaminated Soil in the Tank Farm Area Near WL-102, NE of CPP-604	CPP-33*
					Soil Storage Area in the NE Corner of the CPP	CPP-34*
					Lime Pit at the Base of the CPP-601 Berm and French Drain	CPP-40*
					Pilot Plant Storage Area West of CPP-620	CPP-47*
3-07		X			Well 55-06 (Strontium Contamination in Perched Water)	-
					Contaminated Soil from Leak in Line from CPP WM-181 to PEW	CPP-16
					CPP-604 Radioactive Waste Unloading Area	CPP-20
					CPP Contaminated Soil in the Tank Farm Area (CPP-24, 25, 26, 28, 30, 31, 32)	CPP-24
					Contaminated Soil in Tank Farm Area North of CPP-604	CPP-25
					Contaminated Soil in Tank Farm Area from Steam Flushing Operation	CPP-26
					Contaminated Soil in Tank Farm Area South of WM-181 by Valve Box A-6	CPP-28
					Contaminated Soil in Tank Farm Area Near Valve Box B-9	CPP-30
					Contaminated Soil in Tank Farm Area South of Tank WM-183	CPP-31
					Contaminated soil in Tank Farm area SW and NW of Valve Box B-4	CPP-32
					Tank Farm Release Near Valve Box A-2	CPP-79

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Action Track 2	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
3-08			X			<p>WAG 3 (continued)</p> <p>Pressurization of the Solid Storage Cyclone NE of CPP-633</p> <p>Solvent Burner East of CPP-605</p> <p>Contaminated Soil in the Tank Farm Area East of CPP-604</p> <p>Contaminated Soil North and West of the Main Stack (CPP-708)</p> <p>CPP-633 Decontamination Spill</p> <p>Transfer Line Leak from CPP-633 to WL-102</p>	<p>CPP-13</p> <p>CPP-15</p> <p>CPP-27</p> <p>CPP-29</p> <p>CPP-35</p> <p>CPP-36</p>
3-09						<p>Concrete Settling Basin, Vault, and Dry Wells E of CPP-603</p> <p>French Drain W of CPP-603</p> <p>Temporary Storage Area SE of CPP-603</p> <p>Contaminated Soil Around CPP-603 Settling Tank</p> <p>Contaminated Soil Around CPP-603 Settling Basin</p> <p>Trench E of CPP-603 Fuel Storage Basin</p> <p>CPP-603 Basin Filter System Line Failure</p> <p>Soil Contamination Near the NE Corner of CPP-603 S Basin</p> <p>CPP-603 Plastic Pipeline Break</p> <p>CPP-603 Sludge and Water Release</p> <p>Soil Storage Area South of CPP Peach Bottom Fuel Storage Area</p> <p>CPP-603 to CPP-604 Line Leak</p> <p>Particulate Air Release South of CPP-603</p> <p>Abandoned Liquid Radioactive Waste Storage Tank CPP VES-SFE-20</p> <p>Contaminated Soil W of CPP-693, E of Dry Fuel Storage Area</p>	<p>CPP-01</p> <p>CPP-02</p> <p>CPP-03</p> <p>CPP-04</p> <p>CPP-05</p> <p>CPP-06</p> <p>CPP-08</p> <p>CPP-09</p> <p>CPP-10</p> <p>CPP-11</p> <p>CPP-17</p> <p>CPP-19</p> <p>CPP-22</p> <p>CPP-69</p> <p>CPP-78</p>
3-10						<p>Drainage Ditch West of CPP-637</p> <p>Grease Pit South of CPP-608</p> <p>CPP-637 Courtyard Pilot Plant Release</p> <p>Nitric Acid Contamination South of CPP-734</p>	<p>CPP-42</p> <p>CPP-44</p> <p>CPP-46</p> <p>CPP-56</p>
3-11						<p>CPP-621 Chemical Storage Area Spills</p> <p>CPP PEW Evaporator Overhead Pipeline Spills</p>	<p>CPP-45</p> <p>CPP-58</p>

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Scoping Track 2	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
3-12		X				WAG 3 (continued)	
						CPP-601 Vent Tunnel Drain Leak (VT-300)	CPP-80
						Abandoned CPP-637/CPP-601 VOG Line	CPP-81
						Abandoned Line 1.5 in. - PLA - 776 West of Beech Street	CPP-82
3-13					X	WAG 3 Comprehensive RI/FS, including: CPP HF Storage Tank (YDB-105) and Dry Well French Drain South of CPP-633	- CPP-39** CPP-48**

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Track 1	Scoping Track 2	Interim Action	R1/FS	Sites Within Operable Unit	Site Code
WAG 4: CENTRAL FACILITIES AREA (CFA)							

4-01				X		CFA Central Grave Pit CFA French Drain (containing 5-in. shell) N of CFA-633 (Note: This interim action OU is being performed under OU 10-05)	CFA-09 CFA-11

4-02				X		CFA Dry Well (South of CFA-640) CFA Two Dry Wells (CFA-665) CFA Dry Well (CFA-674) CFA Dry Well (South of CFA-682 Pumphouse)	CFA-13 CFA-14 CFA-15 CFA-16

4-03				X		CFA Fire Department Training Area, Oil Storage Tanks CFA Gasoline Tanks (2) East of CFA-606 CFA Fuel Oil Tank at CFA-609 (CFA-732) CFA Fuel Tank at Nevada Circle 1 (South by CFA-629) CFA Fuel Oil Tank at CFA-640 CFA Fuel Oil Tank at CFA-641 CFA Fuel Tank at Nevada Circle 2 (South by CFA-629) CFA Fuel Oil Tank at CFA-656 (North side) CFA Fuel Oil Tank at CFA-669 (CFA-740) CFA Fuel Oil Tank at CFA-674 (West) CFA Waste Oil Tank at CFA-664, active CFA Waste Oil Tank at CFA-665, active CFA Waste Oil Tank at CFA-754, active CFA Fuel Tank at CFA-667 (North Side) CFA Fuel Tank at CFA-667 (South Side) CFA Diesel Tank at CFA-674 (South) CFA Sulfuric Acid Tank at CFA-674 (West side) CFA Gasoline Tank at CFA-680 CFA Diesel Tank at CFA-681 (South side) CFA Fuel Oil Tank, CFA-683	CFA-18 CFA-19 CFA-20 CFA-21 CFA-22 CFA-23 CFA-24 CFA-25 CFA-27 CFA-28 CFA-29 CFA-30 CFA-31 CFA-32 CFA-33 CFA-34 CFA-35 CFA-36 CFA-37 CFA-38

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
4-04		X			WAG 4 (continued)	
4-05		X			CFA "Drum Dock" (CFA-771) CFA Returnable Drum Storage - South of CFA-601 CFA Excess Drum Storage - South of CFA-674	CFA-39 CFA-40 CFA-41
4-06		X			CFA Pond (CFA-674) CFA Fire Department Training Area, bermed	CFA-04 CFA-17
4-07		X			CFA Spray Paint Booth Drain (CFA-654) CFA Lead Shop (outside areas) CFA Lead Storage Area	CFA-44 CFA-06 CFA-43
4-08		X			CFA French Drain E/S of (CFA-633) CFA French Drains (2) (CFA-690)	CFA-07* CFA-12*
4-09		X			CFA Sewage Plant (CFA-691), Septic Tank (CFA-716) and Drainfield	CFA-08
4-10		X			CFA Transformer Yard Oil Spills CFA 760 Pump Station Fuel Spill CFA Tank Farm Pump Station Spills	CFA-10 CFA-26 CFA-42
4-11			X		CFA Landfill I CFA Motor Pool Pond	CFA-01 CFA-05*

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Scoping Track 2	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
WAG 4 (continued)							
4-12					X	CFA Landfill II CFA Landfill III	CFA-02* CFA-03*
4-13					X	WAG 4 Comprehensive RI/FS	-

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Track 2	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
WAG 5: POWER BURST FACILITY (PBF)/AUXILIARY REACTOR AREA (ARA)							
None	X					ARA-I Sewage Treatment Facility (ARA-737)	ARA-04
						ARA-II Seepage Pit to East (ARA-720A)	ARA-07
						ARA-II Seepage Pit to West (ARA-720B)	ARA-08
						ARA-II Septic Tank (ARA-738)	ARA-09
						ARA-II Septic Tank East (ARA-613)	ARA-10
						ARA-II Septic Tank West (ARA-606)	ARA-11
						ARA-III Septic Tank and Drainfield (ARA-739)	ARA-14
						ARA-IV Test Area Septic Tank and Leach Pit No. 2	ARA-21
						ARA-IV Control Area Septic Tank and Leach Pit No. 3 (ARA-617)	ARA-22
						PBF Control Area Septic Tank (PBF-724), Seepage Pit (PBF-735)	PBF-01
						PBF Control Area Septic Tanks (PBF-738,739), Seepage Pit (PBF-736)	PBF-02
						PBF Control Area Septic Tank for PBF-632 and Seepage Pits (PBF-745,748)	PBF-03
						PBF Reactor Area Septic Tank and Drainfield (PBF-728)	PBF-09
						PBF SPERT II Septic Tank and Seepage Pit (PBF-725)	PBF-17
						PBF SPERT IV Septic Tank and Leach Pit (PBF-727 and 757)	PBF-25
						PBF SPERT III Septic Tank (PBF-726) and Seepage Pit	PBF-27
5-01				X		ARA-I Evaporation Pond to NE (ARA-744)	ARA-05
						ARA-III Radionuclide Tank (ARA-735)	ARA-15
						ARA-I Radionuclide Tank (ARA-729)	ARA-16
						ARA-I Drain (ARA-626)	ARA-17
						ARA-III Radionuclide Tank (ARA-736)	ARA-18
						ARA-II Detention Tank for Fuel Oil/Radionuclides (ARA-719)	ARA-19
5-02				X		PBF SPERT I Leach Pond	PBF-12
						PBF SPERT III Large Leach Pond	PBF-21
						PBF SPERT IV SPERT Lake (adjacent to PBF-758)	PBF-26
5-03				X		PBF Cooling Tower Area and Drainage Ditch	
						PBF Reactor Area Blowdown Pit for Reactor Boiler by PBF-621	PBF-06

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action Track 2	RI/FS	Sites Within Operable Unit	Site Code
WAG 5 (continued)						
5-04	X				PBF Reactor Area Oil Drum Storage (PER-T13)	PBF-07
					PBF Reactor Area Rubble Pit	PBF-13
					PBF SPERT IV Blowdown Pit (adjacent to PBF-716)	PBF-24
5-04					PBF Control Area Oil Tank at PBF-608 (substation) outside PBF fence	PBF-04
					PBF SPERT II Inactive Fuel Oil Tank (front of PBF-612)	PBF-14
					PBF SPERT III Inactive Fuel Oil Tank at PBF-609 (west side of WERF)	PBF-19
5-05		X			ARA-II SL-1 Burlap Ground	ARA-06
5-06	X				ARA-III Radioactive Waste Leach Pond	ARA-12
					ARA-IV Test Area Contaminated Leach Pit No. 1	ARA-20
5-07	X					
					ARA-I Sanitary Waste Leach Field and Seepage Pit (ARA-746)	ARA-02
					ARA-I Pad Near ARA-627 (Lead sheeting)	ARA-03
5-08	X					
					PBF Reactor Area Vana Waste Injection Well (PBF-301)	PBF-05
					PBF SPERT I Seepage Pit (PBF-750)	PBF-11
5-09	X				PBF Reactor Area Corrosive Waste Injection Well (PBF-302)	PBF-15
					PBF SPERT II Leach Pond	PBF-16
					PBF SPERT III Small Leach Pond	PBF-20
5-10				X	PBF SPERT IV Leach Pond (PBF-758)	PBF-22
5-10					ARA-I Chemical/Evaporation Pond (ARA-745)	ARA-01*

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
WAG 5 (continued)						
5-11		X			ARA-III Sanitary Sewer Leach Field and Septic Tank (ARA-740)	ARA-13*
5-12				X	WAG 5 Comprehensive RI/FS, including: PBF Reactor Area Corrosive Waste Disposal Sump Brine Tank (PBF-731) PBF Reactor Area Evaporation Pond (PBF-733)	PBF-08* PBF-10*
5-13			X		PBF Reactor Area Corrosive Waste Disposal Sump Brine Tank (PBF-731) PBF Reactor Area Evaporation Pond (PBF-733)	PBF-08* PBF-10*

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Scoping Track 2	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
None	X					WAG 6: EXPERIMENTAL BREEDER REACTOR NO. 1 (EBR-1) -----	
						EBR-1 Septic Tank (AEF-702) and Seepage Pit (AEF-703) EBR-1 Seepage Pit (WMO-702) EBR-1 Septic Tank (WMO-701) EBR-1 Cesspool, Septic Tank (EBR-703) and Seepage Pit (EBR-713) EBR-1 Septic Tank (EBR-714) and Seepage Pit (EBR-716)	EBR-02 EBR-03 EBR-04 EBR-05 EBR-06
6-01				X		BORAX-1 Burial Site	BORAX-02
6-02			X			BORAX-II-V Leach Pond BORAX AEF Septic Tank (AEF-703) BORAX Trash Dump	BORAX-01 BORAX-03 BORAX-04
6-03			X			BORAX Fuel Oil Tank, SW of AEF-602 BORAX Inactive Fuel Oil Tank by AEF-601 EBR-1 (AEF-704) Fuel Oil Tank at AEF-603 (map says diesel) EBR-1 (WMO-703) Fuel Oil Tank, soon inactive EBR-1 (WMO-704) Fuel Oil Tank at WMO-601 EBR-1 (WMO-705) Gasoline Tank EBR-1 Fuel Oil Tank (EBR-706) EBR-1 Diesel Tank (EBR-707) EBR-1 Gasoline Tank (EBR-708) EBR-1 Gasoline Tank (EBR-717)	BORAX-05 BORAX-07 EBR-07 EBR-08 EBR-09 EBR-10 EBR-11 EBR-12 EBR-13 EBR-14
6-04			X			Radioactive Soil Contamination (EBR-1)	EBR-15
6-05					X	WAG 6 Comprehensive RI/FS ***	

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
WAG 7: RADIOACTIVE WASTE MANAGEMENT COMPLEX (RWMC)						
7-01		X			SDA Soil Vaults	RWMC-04
7-02		X			SDA Acid Pit	RWMC-04
7-03		X			Non TRU Contaminated Wastes Pits and Trenches	RWMC-04
7-04		X			Air Pathway	
7-05		X			Surface-Water Pathways and Surficial Sediments	
7-06		X			Groundwater Pathway	
7-07		X			Vadose Zone (Rad/Metals)	
7-08				X	Vadose Zone Organics RI/FS	
7-09		X			TSA Releases	RWMC-05
7-10			X		Pit 9 Process Demonstration	RWMC-04

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
7-11		X			WAG 7 (continued)	
					RWMC Drainage and Septic Tank for WMF-613 (new)	RWMC-01
					RWMC-Septic Tank and Drainfield for WMF-601 and 604	RWMC-02
					RWMC Septic Tank and Drainfield for SVEPP	RWMC-03
7-12				X	Pad A RI/FS	RWMC-04
7-13				X	TRU Pits and Trenches RI/FS	RWMC-04
7-14				X	WAG 7 Comprehensive RI/FS	

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
WAG 8: NAVAL REACTORS FACILITY (NRF)						

None	X				Old Parking Lot Landfill (P-8)	34
					Old Radiography Area (P-13)	39
					Kerosene Spill (P-20)	46
					SIW Gravel Pit (P-31)	57
					Old Incinerator (P-34)	60
					Old Transformer Yard (P-40)	67
					SWMU Unit #4 - Top Soil Pit Area	NRF-04
					SWMU Unit #5 - West Landfill	NRF-05
					SWMU Unit #7 - East Landfill	NRF-07
					SWMU Unit #24 - Demineralizer and Neutralization Facility	NRF-24
					SWMU Unit #25 - Chemical Waste Storage Pad	NRF-25
					Gatehouse Transformer (P-4)	30
					Main Transformer Yard (P-1)	27
8-01			X		South Landfill (P-7)	33
					Lagoon Construction Rubble (P-14)	40
					East Rubble Area (P-15)	41
					AIW Construction Debris Area (P-37)	63
					SWMU Unit #3 - ECF Gravel Pit	NRF-03
					SWMU Unit #6 - SE Landfill	NRF-06
					SWMU Unit #8 - North Landfill	NRF-08
8-02			X		Old Painting Booth (P-11)	37
					ECF French Drain (P-12)	38
					Old Sewage Effluent Ponds (P-16)	42
					Site Lead Shack (NRF Building #614) (P-21)	47
					Old Lead Shack (P-26)	52
					Old Boilerhouse Blowdown Pit (P-28)	54
					Miscellaneous NRF Sumps and French Drains (P-29)	55
					Old Radioactive Materials Storage and Laydown Area (P-35)	61
					South Gravel Pit (P-38)	64

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action Track 2	RI/FS	Sites Within Operable Unit	Site Code
8-03				X	WAG 8 (continued)	
					Corrosive Area Behind BB 11 (P-43)	68
					SWMU Unit #9 - Parking Lot Runoff Leaching Trenches	NRF-09
8-04				X	Site Incinerator (P-19)	45
					Degreasing Facility (P-30)	56
					SWMU Unit #10 - Sand Blasting Slag Trench	NRF-10
					SWMU Unit #15 - SIW Acid Spill Area	NRF-15
					SWMU Unit #18 - SIW Spray Ponds	NRF-18
					SWMU Unit #20 - AIW Acid Spill Area	NRF-20
					SWMU Unit #22 - AIW Painting Locker French Drain	NRF-22
					SWMU Unit #23 - Sewage Lagoons	NRF-23
					AIW Transformer Yard (P-2)	28
					S5G Oily Waste Spill (P-3)	29
8-05				X	AIW Oily Waste Spill ((P-5)	31
					SIW Industrial Wastewater Spill Area (P-18)	44
					SIW Old Fuel Oil Tank Spill (P-32)	58
					ECF Acid Spill Area (P-36)	62
					Southeast Corner Oil Spill (P-39)	65
					West Refuse Pit #4 (P-25)	51
					Original SIW Refuse Pit (P-33)	59
8-06				X	SWMU Unit #1 - Field Area North of SIW	NRF-01
					Lagoon Landfill #1 (P-9)	35
					Lagoon Landfill #2 (P-10)	36
					West Refuse Pit #1 (P-22)	48
					West Refuse Pit #2 (P-23)	49
					West Refuse Pit #3 (P-24)	50
					East Refuse Pits and Trenching Area (P-27)	53

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
WAG 8 (continued)						
8-07				X	LDU Unit #1 - Industrial Waste Ditch	HRF-26*
8-08				X	<p>WAG 8 Comprehensive RI/FS, including:</p> <p>S56 Basin Sludge Disposal Bed (P-6)</p> <p>Seepage Basin Pump Out Area (P-17)</p> <p>Hot Storage Pit (P-41)</p> <p>SWMU Unit #2 - Old Ditch Surge Pond</p> <p>SWMU Unit #11 - SIW Seepage Basin #1: Tile Drainfield</p> <p>SWMU Unit #12 - SIW Seepage Basin #2: Leaching Pit</p> <p>SWMU Unit #13 - SIW Seepage Basin #3: Temporary Leaching Pit</p> <p>SWMU Unit #14 - SIW Seepage Basin #4: Industrial Waste Lagoons</p> <p>SWMU Unit #16 - SIW Radiography Building Collection Tanks</p> <p>SWMU Unit #17 - SIW Retention Basins</p> <p>SWMU Unit #19 - AIW Leaching Bed</p> <p>SWMU Unit #21 - Old Sewage Treatment Plant</p>	<p>32</p> <p>43</p> <p>66</p> <p>HRF-02</p> <p>HRF-11</p> <p>HRF-12</p> <p>HRF-13</p> <p>HRF-14</p> <p>HRF-16</p> <p>HRF-17</p> <p>HRF-19</p> <p>HRF-21</p>

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Scoping Track 2	Interim Action	R1/FS	Sites Within Operable Unit	Site Code
None						WAG 9: EXPERIMENTAL BREEDER REACTOR NO. 2 (EBR-II)/TRANSIENT REACTOR TEST FACILITY (TREAT)	
	X					<p>Dry Well between T-1 and ZPPR Mound</p> <p>Waste Retention Tank 783 (never used)</p> <p>Suspect Waste Retention Tank by 793 (removed 1979)</p> <p>Septic Tank and Drain Fields (2) by 753 (tank removed 1979)</p> <p>Dry Well by 768</p> <p>Dry Well by 759 (2)</p> <p>Dry Well by 720</p> <p>Septic Tank and Drain Field by 789 (removed 1979)</p> <p>Septic Tank and Leach Field by 793</p> <p>TREAT Suspect Waste tank and Leaching Field (non-radioactive)</p> <p>TREAT Septic Tank and Leaching Field</p> <p>TREAT Seepage Pit and Septic Tank W of 720 (filled 1980)</p> <p>Lab and office Acid Neutralization Tank</p> <p>Interior Building Coffin Neutralization Tank</p> <p>Critical Systems Maintenance Degreasing Unit</p> <p>TREAT Control Building 721 Septic Tank and Leach Field (present)</p> <p>TREAT Control Building 721 Septic tank and Seepage Pit (removed 1978)</p> <p>Plant Services Degreasing Unit</p>	<p>ANL-10</p> <p>ANL-11</p> <p>ANL-12</p> <p>ANL-14</p> <p>ANL-15</p> <p>ANL-16</p> <p>ANL-17</p> <p>ANL-18</p> <p>ANL-20</p> <p>ANL-21</p> <p>ANL-22</p> <p>ANL-23</p> <p>ANL-24</p> <p>ANL-25</p> <p>ANL-26</p> <p>ANL-32</p> <p>ANL-33</p> <p>ANL-27</p>
						<p>Septic Tank 789-A</p> <p>Knawa Butte Debris Pile</p> <p>EBR-II Transformer Yard</p> <p>Sodium Boiler Building (766) Hotwell</p> <p>ANL Sewage Lagoons</p> <p>Sludge Pit W of T-7 (Imhoff Tank) (filled in 1973)</p> <p>EBR-II Sump (regeneration)</p> <p>Industrial Waste Lift Station</p> <p>Sanitary Waste Lift Station</p> <p>TREAT Photo Processing Discharge Ditch</p>	<p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>ANL-04</p> <p>ANL-19</p> <p>ANL-28</p> <p>ANL-29</p> <p>ANL-30</p> <p>ANL-36</p>

9-01

X

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Scoping Track 2	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
WAG 9 (continued)							
9-02			X			EBR-III Leach Pit (radioactive)	ANL-08
9-03			X			ANL Open Burn Pits #1, #2 and #3 Industrial/Sanitary Waste Lift Station (industrial side not used) Fuel Oil Spill by building 755	ANL-05 ANL-31 ANL-34
9-04					X	WAG 9 Comprehensive RI/FS, including: Industrial Waste Pond and Cooling Tower Blowdown Ditches (3) Main Cooling Tower Blowdown Ditch ANL Interceptor Canal Industrial Waste Lift Station Discharge Ditch Cooling Tower Riser Pits	- ANL-01 ANL-01A** ANL-09 ANL-35 ANL-53

TABLE A.2 (continued) OPERABLE UNITS AND CERCLA PROCESS TRACKS

Operable Unit #	No Action	Prelim. Scoping Track 1	Scoping Track 2	Interim Action	RI/FS	Sites Within Operable Unit	Site Code
WAG 10: MISCELLANEOUS SITES							
None	X					ARVFS Tank Containing Low-level Radioactive Waste (under white building)	ARVFS-02
						Dairy Farm Disposal Pit	DF-1
						EOCR Injection Well	EOCR-02
						EOCR Oxidation Pond	EOCR-03
						EOCR Septic Tank	EOCR-04
						APPR Disposal Pit (outside ANL-W fence)	ZPPR-01
						ARVFS Containers of Contaminated NaK	ARVFS-01
						EOCR Leach Pond	EOCR-01
						EOCR Blowdown Sump (EOCR-719)	EOCR-05
10-01		X				LCCDA Old Disposal Pit (west end)	LCCDA-01
						LCCDA Limestone Treatment and Disposal Pit (east end)	LCCDA-02
10-02		X				OMRE Leach Pond	OMRE-01
10-03		X				Ordinance Areas (including NODA)	-
10-04					X	WAG 10 Comprehensive/Snake River Aquifer RI/FS	-
10-05				X		Ordinance Interim Action (Note: This interim action OU includes OU 4-01)	

* COCA Land Disposal Units (LDUs)

** COCA LDUs retaining LDU designation

*** OU 6-05, the Comprehensive RI/FS for WAG 6 will be incorporated into the Comprehensive RI/FS for WAG 10, OU 10-04

FIGURE A - TEN-YEAR ROD SCHEDULE FOR INEL ERP: WAG 2 TRA

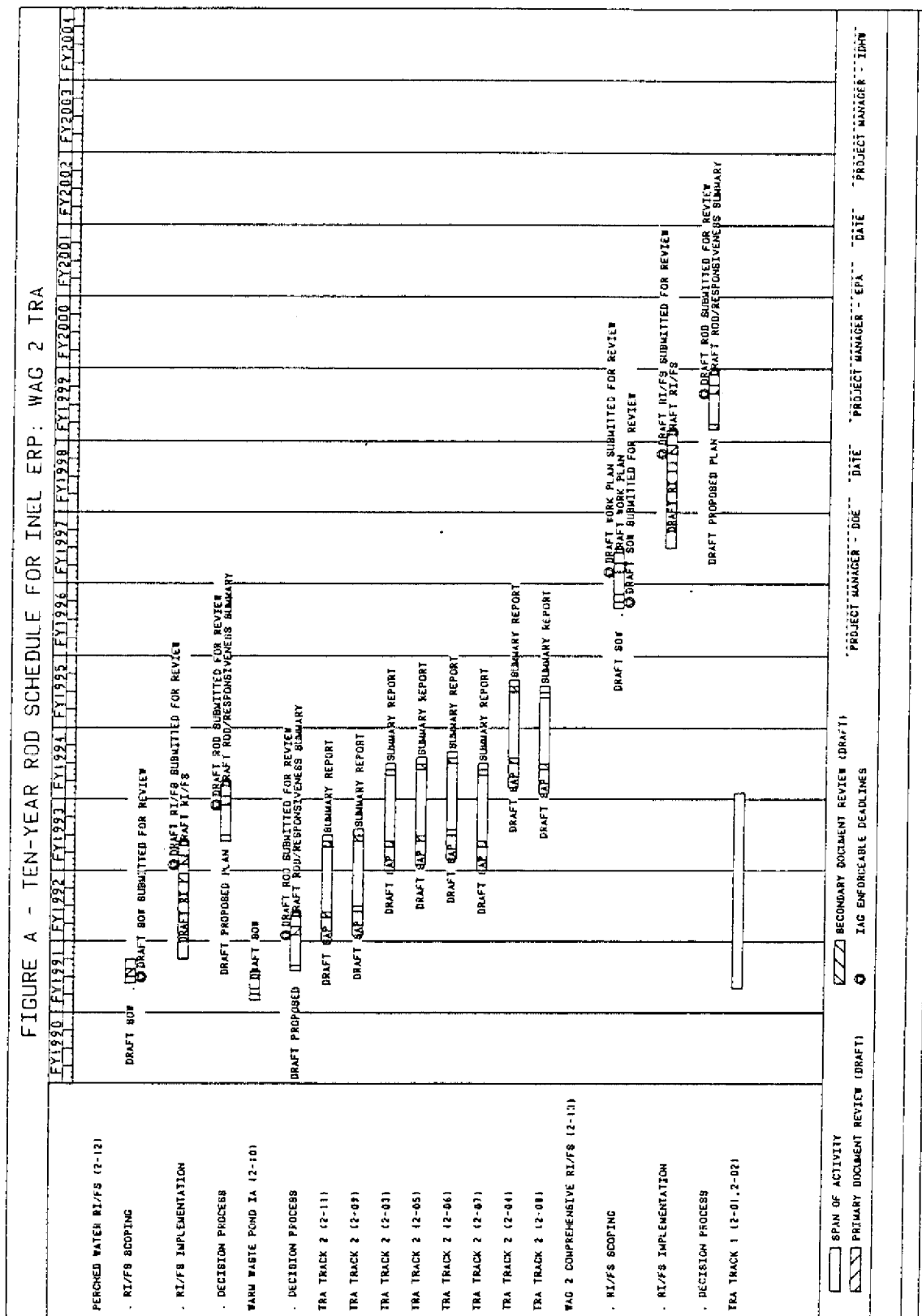


FIGURE A - TEN-YEAR ROD SCHEDULE FOR INEL ERP: WAG 3 CPP

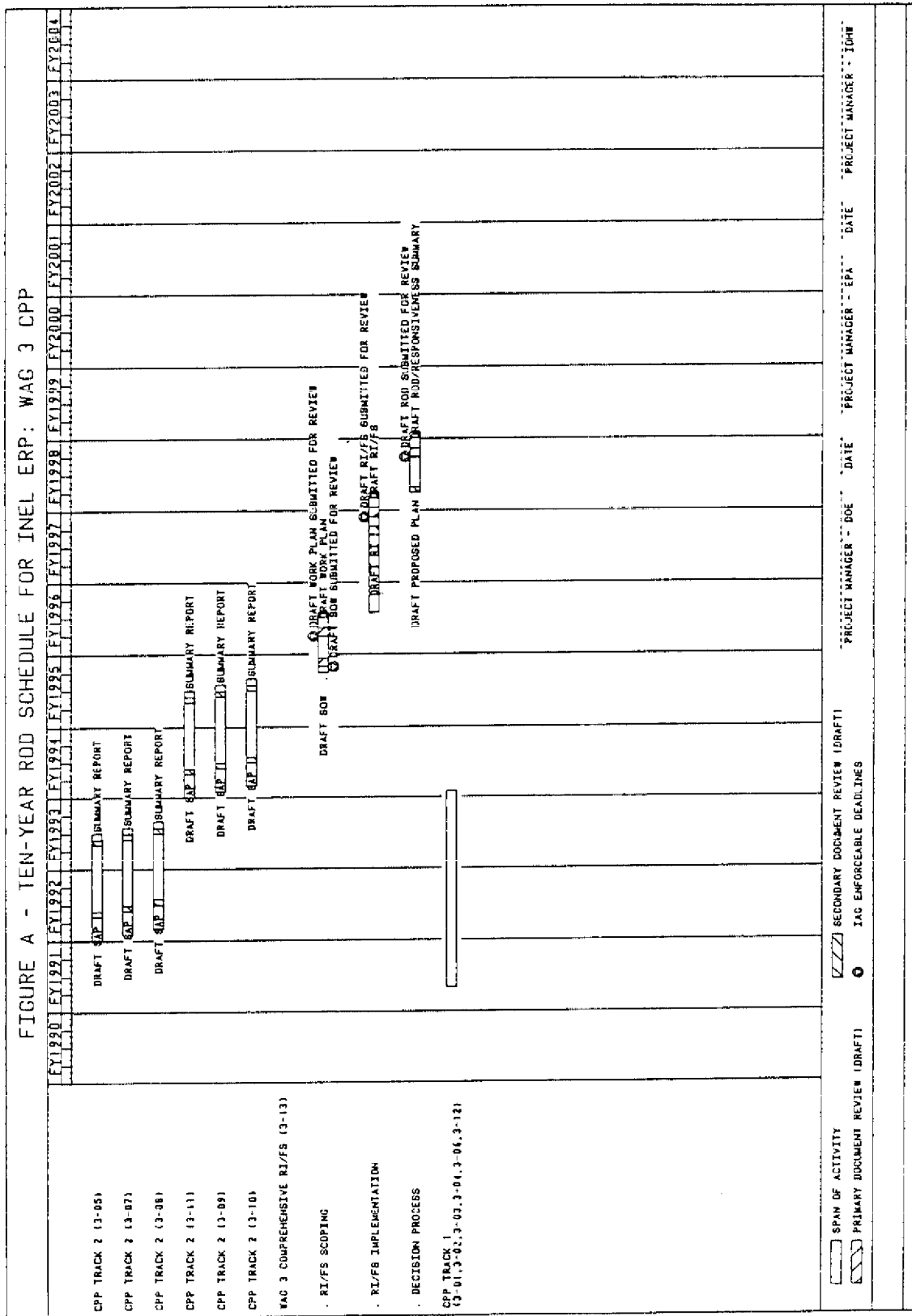
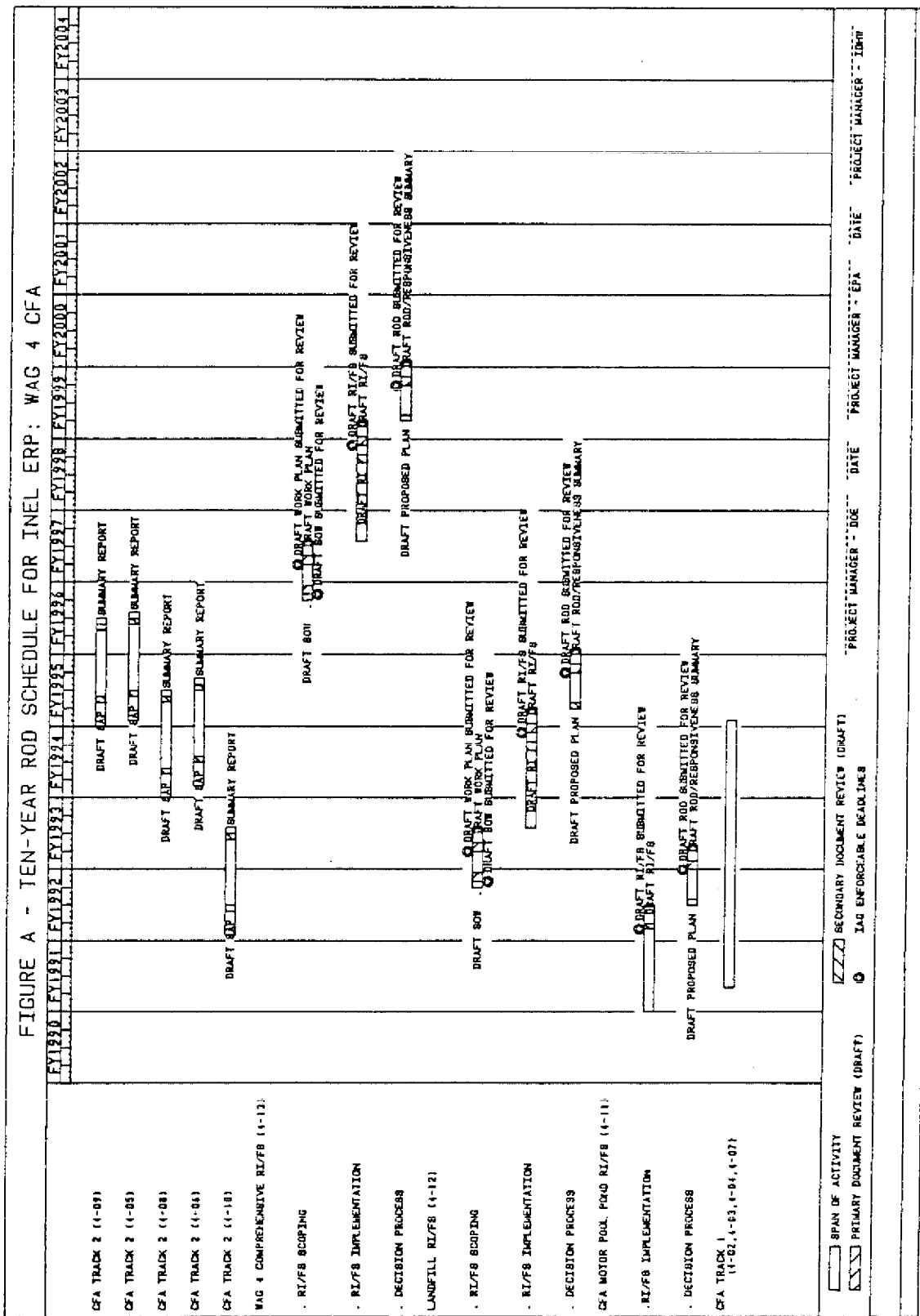


FIGURE A - TEN-YEAR ROD SCHEDULE FOR INEL ERP: WAG 4 CFA



Appendix B

No Further Action Determination

Appendix B

NO FURTHER ACTION DETERMINATION

The U. S. Department of Energy, U.S. Environmental Protection Agency-Region 10 and the State of Idaho have completed a review of the referenced information for _____ (Name) hazardous site, as it pertains to the INEL Federal Facility Agreement of _____ (Date). Based on this review, the Parties have determined that no further action for purposes of investigation or study is justified. This decision is subject to review at the time of issuance of the Record of Decision.

Brief Summary of the basis for no further action:

References:

DOE Project Manager _____ date

EPA Project Manager _____ date

Idaho Project Manager _____ date

Appendix C

Preliminary Scoping Track 2

Summary Report Outline

PRELIMINARY SCOPING TRACK 2
RECOMMENDED SUMMARY REPORT OUTLINE

- 1.0 INTRODUCTION
 - 2.0 SITE BACKGROUND
 - 3.0 DESCRIPTION OF HAZARDOUS SUBSTANCES
 - 4.0 GROUNDWATER CONCERNS (if applicable)
 - 5.0 SURFACE WATER CONCERNS (if applicable)
 - 6.0 AIR CONCERNS (if applicable)
 - 7.0 HEALTH AND ENVIRONMENTAL CONCERNS
 - 8.0 QUALITY ASSURANCE/QUALITY CONTROL
 - 9.0 RECOMMENDATIONS FOR REMEDIAL ACTION
 - 10.0 REFERENCES
- APPENDICES

APPENDIX D

PROJECT MANAGER DESIGNATIONS

PROJECT MANAGER DESIGNATIONS

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